High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: SSUP037

Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features)

oligin A 15 data CL pt, M 540004 W540009



Waterbody ssup037 facing northeast upstream.



Waterbody ssup037 facing southwest downstream.



Waterbody ssup037 facing southeast across bank.

Linear Waterbody Data Sheet				Same and the second		
Survey Description						
Project Name:	Waterbody Name:		V	Vaterbody ID:		Date:
ALP	UNI to L	Jome	SUAMO	Ssuroc	6	14 Jan 2016
State: County/Parish:	Compar	ny:	drew	Member Initials:	Photos:	FC
VA Suffol	K E	51	CF	ts cs	MW	L S
Tract Number(s):	Nearest	TI.3		Associated We	etiand ID(s):	
Survey Type:	5-1			IN SH	0 01	
(check one) Centerline	Re-Route	Acce	ess Road	□Other:		
Physical Attributes	and the second					
(check one)	I 🗆 Intermittent	Pere	ennial			
Waterbody Type: (check one)	eam XDitch	🗆 Canal	Other:			
OHWM OHWM Indicat Width: 14 ft. (check all that apply)	or: D Cle on ba	ear line [nk	Shelving	□Wrested vegetation	□Scourin	g XIW ater staining
Height:ftftVegetation	natted, or missing DWn	ack line [□Litter and lebris	□ Abrupt plant community ch	t Soil c ange	haracteristic change
Width of Waterbody - Top of Width of Bank to Top of Bank:	of Waterbody - Toe of S	lope Width o Water F	f Waterbody - V	Water Edge to	Depth of Wate (Approx.)	r:
		The second secon	14	- A		H #
ft	ft.	N/A		_ft.	N/A	<u> </u>
Sinuosity: Water v	velocity:	Bank he	ight		Bank slope	
(check one) Straight (Approx.)			Right: 3		Righ	t: 90 degrees
	fps		Left: 7		Lef	t: QD
N/AD				_n.		degrees
Qualitative Attributes	1944 - Alexandre					
(check one)	Clear DTurbid	□Sheen on surface	□Surface scum	□ Algal mats	□Other:	
Substrate: Bedrock Bo	ulder 🗆 Cobble 🗆	Gravel 🗆 5	Sand Silt	clay 🗆 Organic	c 🗇 Other:	
% of Substrate:%	_%%	%	% /00	_%%	%%	
Width of Riparian Zone: Vegetative	a lavere:			11.12	Maria No.	
(check all that	apply)	Trees:	A Sap	lings/Shrubs:	FHerbs	
N/A Avg. DBH	of Dominants:	<u>15</u> in.	-2	in.	NA	n.
Dominant Bank Vegetation (list):	A		9:000	Lea		
TIMUS Facon	() Arnudi	naria	Jigun	run		
Submerged MDD	d aquatic vegetation, overha	anging banks/roc	its, leaf packs, lar	ge submerged wood	d, riffles, deep po	ols):
Aquatic Organisms Observed (list):						
None						
T&E Species Observed (list):						
Road, Waterline	in waterbody, waste dischar L CA SCM	rge pipes):		antike-11	4	
Tributary is: (check one)	Artificial, r	man-made	Manipulate	d		
Stream Quality *: (check one) · · · · · · · · · · · · · · · · · · ·	Moderate	6-203	Low			

	Waterbody ID: SSUC006
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; dividisturbance by livestock or man.	side; banks stable and protected by verse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active of function or riparian vegetation only moderately compromised; banks moderately unstable; water color is clour greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by live	channel width on each side; filtering dy, submerged objects covered with stock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural ve channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish more severe disturbance from livestock or man.	egetation less than 1/3 of the active eroding); water color is muddy and ovement; little to no aquatic habitat;
Notes:	
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boun	ndary, and IDs of associated features
V WSUDDII	1
Desterior	VA
Conter in a	V
+ fence + fence	+ month
	N
Ditch ssurbog	
- Highway 58	
J 0	
6.204	

6-204



Waterbody ssur006 facing east upstream.



Waterbody ssur006 facing west downstream.



Waterbody ssur006 facing south across bank.

Linear Waterbody Data Sheet

Survey Description							
Project Name:		Waterbody Nar	ne:		Waterbody ID:	20	Date:
ACP		tast	DItC	h	schru	04	21 Jan 2016
State: Co	ounty/Parish:	U.J.	Company:		Crew Member Initials	: Photos:	
VA (Chesope	sake	ES	1	CAJ CSM	NW	,SE,S
Tract Number(s):	noi postali	Carl Contra	Nearest Mile	post:	Associated W	etland ID(s):	era di Sulta di Madi
2+-001-	DOD	1	+1.	5	wchr ()02	11
(check one)	Centerline	□Re-F	Route	Access Road	□Other:		
Physical Attributes							
(check one)	□Ephemera	I 🗆 Inter	mittent				
Waterbody Type:							
(check one)	ver 🗆 Stre	eam XDito	⊳h ⊡Ca	nal 🗆 Other:			
OHWM Width: <u>15</u> ft.	OHWM Indicat (check all that apply	or:)	Clear line	e 🗆 Shelving	□Wrested vegetation	Scouring	W ater staining
Height: 3 ft.	□Bent, m	natted, or missin	g 🗆 Wrack lin	e DLitter an debris	d DAbrupt plar	nt ⊡Soil ch nance	naracteristic change
N/AD	Vogotation	Service and the					
Width of Waterbody - Top Bank to Top of Bank:	to Toe	of Waterbody - ` of Slope:	Toe of Slope	Width of Waterbo Water Edge:	dy - Water Edge to	(Approx.)	:
19 #		12.		1	3 #	100	2 ft.
	-	<u>, , , , , , , , , , , , , , , , , , , </u>		N/A	<u> </u>	N/A	
Sinuosity:	Water	elocity:		Bank height		Bank slope	
Straight	(Approx.)	< .		Right:	4 .	Right	: 80 degrees
	1944 A.	<u> </u>	ps	Left:	4	Left	* SD
LiMeandering	N/A□				ft.		degrees
Qualitative Attribute	5						
(check one)	o water 💢	Clear 🗆 Turt	oid 🗆 Sho on	een ⊡Sur surface scu	face □Algal ım mats	Other:	
Substrate: 🗆 B	edrock 🗆 Bo	ulder 🗆 Cobl	ble 🗆 Grave	el 🗆 Sand 🛛	🗆 Silt/ clay 🞾 Organi	c 🗆 Other:	T.F.F.
(check all that apply) % of Substrate:	%	_%	_%	_%% _	% 100	%%	
Width of Riparian Zone:	Vegetative	Layers:					
40 .	(check all that	apply)	Trees	: 🖉	Saplings/Shrubs:	Herbs	
	(approx.)	of Dominants:	10	_in	<u> </u>	M/A_in	L.
Dominant Bank Vegetatio	on (list):	-					
Aler rubru	m, Ar	undinari	a gig	anten			
Aquatic Habitats (ex: subn	nerged or emerge	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	ks, large submerged woo	d, riffles, deep poo	ls):
Submerg	ed W	6009					
Aquatic Organisms Obse	erved (list):						
None		and the second sec		and the second			
T&E Species Observed (I NONC	list):						
Disturbances (ex: livestoch	k access, manure	in waterbody, was	te discharge pip	es):			
JUNK Yar	d, Pi	owerlin	re Eo	sement			
Tributary is:		24	difficiel	ada	wleted		
Stream Quality * :	- Natural	LXA	mincial, man-m	iade 🗆 Manip	Dulated		
(check one)	. 🗆 High	XIN	loderate	🗆 Low			

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: Schr 009

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:	
	AND LAND
and a second	
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location	, survey boundary, and IDs of associated features)
1 106	6
Opinac	
lent	
4.	
Kn l	
4	
	T
	7 west
	T
schrOlo	
	+
	- H
009	
schrout date pt	
Quart	
Y is a	
# A wetland	
CWERFOUR	



Waterbody schr009 facing northwest upstream.



Waterbody schr009 facing southeast downstream.



Waterbody schr009 facing south across bank.

Linear Waterbody Data Sheet			And the street		
Survey Description					
Project Name:	Waterbody Name:		Wate	erbody ID:	Date:
ALP	YNT to E	ist Nita	5	ichr 010	x Jan 2016
State: County/Parish:	Comp	any:	Crew Me	mber Initials:	Photos:
VA Chesap	eake Ei	51	CAJ	CSM	NE, SW, E
27661-DDD2, 27-001-	DODI 7	I,6	A	NDN	and ID(s):
Survey Type: (check one)	□Re-Route	□Access	Road C	Other:	
Physical Attributes Stream Classification:					
(check one)	I Intermittent	A Perenn	al	And Davids	
Waterbody Type: (check one)	eam 🔀 Ditch	Canal	Other:		
OHWM Width: 3_ft.	or: or b	Clear line S Dank	helving [v	□Wrested vegetation	□Scouring Staining
Height: 0,2 ft. Bent, m vegetation	natted, or missing DW า	/rack line DL deb	tter and [ris c	□Abrupt plant community chan	☐ Soil characteristic change ge
Width of Waterbody - Top of Width of	f Waterbody - Toe of	Slope Width of W	aterbody - Wate	er Edge to De	pth of Water:
Bank to Top of Bank: to Toe	of Slope:	Water Edg	. 2	(Ap)	0.2
ft	<u> </u>		ft.	N/A	ft.
Sinuosity: Water v	elocity:	Bank heigt	it	Ba	nk slope
(check one) (Approx.)		Rig	ht: /		Right: 70
7	fps	1	eft:ft.	5	Left: 20 degrees
Meandering N/A			ft.		<u>40</u> degrees
Qualitative Attributes					
Water Appearance:		×-			
(cneck one) UNo water UC	Clear LITurbid	on surface	scum	mats	Other:
Substrate: 🗆 Bedrock 🗆 Bo	ulder 🗆 Cobble 🛛	Gravel 🗆 San	d Z Silt/ clay	y 🕅 Organic	Other:
% of Substrate:%	%	%	% 50%	50%	%
Width of Dingsion Zonge Wagstation					
(check all that	apply)	Trees:	Sapling	s/Shrubs:	Herbs
ft- Avg. DBH	of Dominants:	<u>/3 in.</u>	3	n.	7/14 in.
Dominant Bank Vegetation (list):	alahan tana ang sa				
Liquidambar Styrarif	ina, Aruna	dinaria	gigante	я	
Aquatic Habitats (ex: submerged or emerged)	hanging banks/roots.	eaf packs, large st	ubmerged wood, ri	ffles, deep pools):
None					
Aquatic Organisms Observed (list):		Carlo Carlos			
None					
T&E Species Observed (list):					
Disturbances (ex: livestock access, manure	n waterbody, waste disch	arge pipes):			
Junk yard, culve	/+				
Tributary is: (check one) Image: Check one in the image: Check one interval	↓ Artificial,	, man-made 🛛	Manipulated		
Stream Quality *: (check one)	Moderat	e 🗆	Low		

		Waterbody ID: Schr010
ligh Quality: Natural channel, natu bots; water color is clear to tea-col isturbance by livestock or man.	ral vegetation extends at least one or two active o ored; no barriers to fish movement; many fish c	channel widths on each side; banks stable and protected by over types available; diverse and stable aquatic habitat; no
toderate Quality: Altered channel unction or riparian vegetation only r reenish film; moderate odor; minor l	evidenced by rip-rap; natural vegetation extends noderately compromised; banks moderately unstr parriers to fish movement; fair aquatic habitat; mini	s 1/3-1/2 of the active channel width on each side; filtering able; water color is cloudy, submerged objects covered with mum disturbance by livestock or man.
ow Quality: Channel is actively d hannel width on each side; lack o urbid; obvious pollutants (algal mat evere disturbance from livestock or	own cutting or widening; rip rap and channelizati f regeneration; filtering function severely compror is, surface scum, surface sheen); heavy odor; se man.	on excessive; natural vegetation less than 1/3 of the active mised; banks unstable (eroding); water color is muddy and avere barriers to fish movement; little to no aquatic habitat;
otes:		
aterbody Sketch (Include nort	h arrow, centerline, distance from centerline, data r	point location, survey boundary, and IDs of associated features)
		Counter
same of the	n schrold	
	- west	
	f	- Contection
dat	z pt. 0	
	Schr010	
/		
	11	
schr009		
W Y		
- 7		
Twetland		$\binom{n}{N}$
Twetland		

6-212



Waterbody schr010 facing northeast upstream.



Waterbody schr010 facing southwest downstream.

Photo Sheet 1 of 2 6-213



Waterbody schr010 facing west across bank.

Linear Waterbody Data Sheet

Survey Description	W N	and a second part of the	MI + 1 + 15	10-4-1
Project Name:	Waterbody Name:		Waterbody ID:	Date:
ALP	to E. Dite	No	schrull	21 Jan 2016
State: 0	County/Parish: Com	pany: Cr	ew Member Initials: Photo	s:
VA	Chesapeake t	SI	CAD COM N	,S,E
Tract Number(s):	Near	est Milepost:	Associated Wetland ID(s):	e andread annual south
27-001-DO	03,27-00+D004 7	-1.F	None	Server of the server
Survey Type: (check one)	Centerline DRe-Route	□ Access Road	□Other:	
Physical Attributes	• /			
Stream Classification: (check one)	□Ephemeral □Intermitter	nt ZPerennial		
Waterbody Type: (check one)	River 🗆 Stream 🎾 Ditch	Canal Other:		
онwм	OHWM Indicator:			
Width: 3_ft.	(check all that apply)	Clear line Shelving bank	□Wrested □Scour vegetation	ing DaWater staining
Height: 0,2 ,	Bent, matted, or missing	Wrack line Litter and	□Abrupt plant □Soi	I characteristic change
N/A	vegetation	GEDRIS	community change	/ 自由目标 (各级的特别
Width of Waterbody - To Bank to Top of Bank:	p of Width of Waterbody - Toe of	of Slope Width of Waterbody	y - Water Edge to Depth of Wa	ter:
		3		0.0 .
ft.	ft.	N/AD	ftN/A□	<u>Und</u> n.
Sinuosity:	Water velocity:	Bank height	Bank slope	
(check one)	(Approx.)	Right: /	Rig	int: 70
	fps	Left: /	ft. L	eft: 10 degrees
	N/A		ft.	degrees
Qualitative Attribute	es			
Water Appearance: (check one)	No water □Clear □Turbid	Sheen 🗆 Surfa	ce □Algal □Other:	
		on surface scum	mats	
Substrate:	Bedrock 🗆 Boulder 🗆 Cobble	Gravel Sand	Silt/ clay 🖾 Organic 🛛 Other:	
% of Substrate:	%%%	%%	50% 50%	/a
Width of Riparian Zone:	Vegetative Layers:	-		
<i>L</i>	(check all that apply)	Trees:	Saplings/Shrubs:	5
N/AX	Avg. DBH of Dominants: (approx.)	<u>in.</u>	<u>3 in.</u> <u>N17</u>	_in.
Dominant Bank Vegetat	ion (list):	har chiracter	un Andinario	ajaantea
Finus ta	eda, Liquio ami	all stylaciti	na, Arnadinaria	9.90
Aquatic Habitats (ex: sub	merged or emerged aquatic vegetation, over	erhanging banks/roots, leaf packs	, large submerged wood, riffles, deep	pools):
None				
Aquatic Organisms Obs	erved (list):			
None				
T&E Species Observed	(list):			
Disturbances (ex: livesto	ck access, manure in waterbody, waste disc	charge pipes):	1	
JUNK YO	ord and waste,	Powerline (Ca sement-	
Tributary is: (check one)		al, man-made 🛛 Manipul	ated	
Stream Quality * : (check one)	High	ate 6.215 Low		

Waterbody ID: schroll High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Junk Yard data pt corridor 0 e-schroll -schrol3 V wetland V wchr 002 centerline ¥ V Cschr 012 wetland wchrooz V V corridor



Waterbody schr011 facing north upstream.



Waterbody schr011 facing south downstream.

Photo Sheet 1 of 2 6-217



Waterbody schr011 facing east across bank.

Linear Waterbody Data Sheet

Survey Description		h						10.1	
Project Name:		Waterbody Nar	ne:	~ .	1	Waterbody ID:	2	Date:	2011
ALP		UNIT	o East	Diti	ch	Schron	-0	di Jan.	2016
State: Co	ounty/Parish:		Company:		Cre	w Member Initials	: Pho	tos:	Strengt St
VA (Chesap	reake	ESI		CA	ts csm	N	E, DN,	NW
Tract Number(s):			Nearest Mile	post:		Associated W	etland ID(s	s):	NAL DE MARTIN
27-001-D00	3. 27-00	1-0004	71.	8		wchr	202		
Survey Type:			1 1 5	0		10402-55604			
(check one)	Genterline	DRe-F	Route		cess Road	□Other:			
Physical Attributes	. /		•					and the second	a kala
Stream Classification:									
(check one)	□Ephemera	al 🗆 Inter	mittent	Per	rennial			Hard Street	
Waterbody Type:				anal	C Other:				
	ver 🗆 Str		in LiCi	anai	Li Other:				
онwм	OHWM Indicat	tor:							
Width: 4 ft	(cneck all that apply	1	on bank	10		vegetation		staini	ng
Height:									abanaa
0.5 ft.	vegetatio	natted, or missin n		ne	debris	community ch	lange	son characteristic	change
N/A				harris	· · · · · · · · · · · · · · · · · · ·		De the di		72 PUNCTUR
Width of Waterbody - Top Bank to Top of Bank:	to Toe	of Waterbody -	Toe of Slope	Water	Edge:	- water Edge to	(Approx.)	vater:	
(0.	10100	3			H			1 .	
ft.		ft.				ft.		<u></u> n.	
Sinuceity	Water	velocity:		Bankh	eight		Bank slon	0	
(check one)	(Approx.)	velocity.		Danki	Right		Dank Stop	Right:	· · ·
Straight		< 1 f	os		rugit.	ft.		40 d	egrees
			p.		Left:			Left: U.M.	
	N/A					n.		<u>_{</u> _0	egrees
Qualitative Attribute	S								
Water Appearance:	. 4								
	o water 54	çiear ⊔iun		neen 1 surface	e scum	e Li Aigai mats	L'Other:		
Substrate:	adrock E B				Sand DS			er	101 - 101 - 101
(check all that apply)						ind ciay scorgani		<u></u>	
% of Substrate:	%	_%	_%	_% _	%	_% 100%	/	_%	
Width of Riparian Zone:	Vegetativ	e Layers:							1. Contraction
16	(check all tha	t apply)	Tree	s:	źs	aplings/Shrubs:	H	rbs	
ft.	Avg. DBH	of Dominants:	6	_in.	el de la livia	in.	NII.	t_in.	
Dominant Bank Vegetatio	on (list):					a 11			
Aler rul	ALLINA .	Arund	inaria	91	gantea	, Smila	XSP		
TIC UI FUI	Dinnel	Triberta		0	0	<u>\</u>			
Aquatic Habitats (ex: subr	nerged or emerge	d aquatic vegetatio	on, overhanging	g banks/ro	oots, leaf packs, l	large submerged woo	d, riffles, dee	ep pools):	
ONOMIC	yca	MOD9	-						
Aquatic Organisms Obse	erved (list):				CALCULAR AND		1120.75	STATE OF THE STATE	
NDNe									
100110					Section 19				
N D n C	list):								
Disturbances (ex: livestoc	k access, manure	in waterbody, was	te discharge pi	pes):	1				- -
y vul							41200	140 A 18 A 18 A 18	
(check one)	Natural	¥ A	rtificial, man-	made	🗆 Manipula	ted		a starting to	-
Stream Quality *:	D	V.	A						
(check one)	High	AN	noderate F	-210	LOW				

schr 013 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) June corridor D'A CON June yord schr013 centerline wetland wchr002 schrola V corridor V Dominion Transmission Line ROW V V 6-220

Waterbody ID:



Waterbody schr013 facing northeast upstream.



Waterbody schr013 facing southwest downstream.

Photo Sheet 1 of 2 6-221



Waterbody schr013 facing northwest across bank.

Linear Waterbody	Data Sheet
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Survey Description					
Project Name:	Waterbo	dy Name:	no land the milital	Waterbody ID:	Date:
ACP	UN	Tto Dismo	Suman	schr006	7/3//15
State: Cou	inty/Parish:	Company:	Crew	Member Initials:	Photos: Catival
VAC	hesapeak	e ESI-1	RA	M/CSM	WE
Tract Number(s):	man and a start	Nearest Milepost		Associated Wetland	ID(s):
27-00	Z	70	nt unn innte	AN	n an ann anna a' fhair ann an
Survey Type: (check one)	Centerline	Re-Route	Access Road	□Other:	
Physical Attributes					
Stream Classification: (check one)			Perennial		
Waterbody Type	and the second	· /			1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
(check one)	er 🗆 Stream	Ditch 🗆 Canal	Cother:		
OHWM Width: 10 ft.	HWM Indicator: theck all that apply)	Clear line on bank	Shelving	□Wrested □ vegetation	Scouring Water staining
Height: 1.5_ft.	□Bent, matted, or vegetation	missing DWrack line	□Litter and debris	□Abrupt plant community change	□Soil characteristic change
Width of Waterbody - Top of Bank to Top of Bank:	of Width of Watert to Toe of Slope	oody - Toe of Slope Wid Wat	th of Waterbody - er Edge:	Mater Edge to Depth ((Approx.)) _ft. N/A□	of Water: ft.
Sinuosity: (check one) Straight	Water velocity: (Approx)	fps	Right Right: 3 Left: 3	_ft. _ft.	Right: <u>45</u> Left: <u>145</u> degrees
Qualitative Attributes				THE SECOND	
Water Appearance: (check one)	water Clear	□Turbid □Sheen	□Surface	□Algal □Other	r.
Substrate:	drock □ Boulder [_%% _	Cobble Gravel	Sand Sull	%%	Dther: %
Width of Riparian Zone:	Vegetative Layers: (check all that apply) Avg. DBH of Domi	Trees:	⊠Sai (plings/Shrubs: 🗆 in	Herbs in.
Dominant Bank Vegetation	(list): Vacci	NUM COR	X Mbosu	Im	
Aquatic Habitats (ex: subme	rged or emerged aquatic		s/roots, leaf packs, la	rge submerged wood, riffles,	deep pools):
Aquatic Organisms Observ	Ved (list): Nove	Port Po		fe" _	
T&E Species Observed (lis	D: Nor	le			XX
Disturbances (ex: livestock a	nccess, manure in waterbo	dy, waste discharge pipes):			
Tributary is: (check one)	□ Natural	Artificial, man-made	Manipulate	d	
Stream Quality * : (check one)	□ High	Moderate	□ Low		

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: Schr 006

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side: lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

East/West Ditch, Blue line feature 36.76319°N 76-42800°Le Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) PFO werlands wchr CO2f Ditch *. > flow Schroog FO werrand wohroozf

6-224



Waterbody schr006 facing west upstream



Waterbody schr006 facing east downstream

Photo Sheet 1 of 1 6-225

Linear Waterbody Data Sheet

rvey Descriptio	n	Waterbody N	ame:		Waterbody ID:	• Date	:
A CP		(A(T	to differ	1 Chient	SchrDE	15 17	131/15
ACI	Court D. 11	NN	Comment	5 -0	w Member Initiale	Photos: F	2010
ate:	County/Parish:		Company:		ew wender initials:	Filotos: Je	23
VH	chesat	earce	tsl-"		AM, E>C.	N,E	Walth & Is
act Number(s):			Nearest Milepo	ost:	Associated Wetla	ind ID(s):	
27-00	2 /		n annachtadhadh 19 Annachtadhadh	्ष्रमान् वृक्षा रतः वृष्टानारः मृत्युः अवि अर्थववराष्ट्रविव	NA	en an sean a' s Is a' sean a' s	ana an Arthur Mailte Martin
rvey Type:			Boute		DOther:	a tara mga ana a Mana ang ang ang ang ang ang ang ang ang	
	Centerin		stoute			the Capital State	17 - C. T. <u>19</u> M. (22.17)
ream Classification	25	12 Anna Alba	/				Constant of
eck one)	Epheme	ral Dhi	ermittent	Perennial			
aterbody Type:		1	/	And Anna Anna Anna Anna Anna Anna Anna A			
eck one)	River DS	tream D	Ditch 🗆 Can	al Other:			
HWM	OHWM Indic	ator:					/
Width: 7	(check all that ap	oly)	Clear line	Shelving	□Wrested vegetation	Scouring	2Water staining
ft.			on bank		regetation		
Height:	□ Bent	matted, or mis	sing 🗆 Wrack line	 Litter and debris 	Community chan	□Soil chara ce	acteristic change
	vegetat		in ann aide anns		commanity onen		sadiana l
idth of Waterbody -	Top of Width	of Waterbody	- Toe of Slope V	Vidth of Waterboo Vater Edge:	dy - Water Edge to De	epth of Water:	
	1010	l alope.	11 1. 1. 50 6	futer Edge.		_	
<u>(~ ft</u>		ft.			ft		n.
inuosity:	Wate	r velocity:		Bank height	B	ank slope	and the second
heck one)	(Appro	x.)		Right:	2	Right: (+5
Estraight			fps		ft.		degrees
Meande				Left:	3 .	Left: J	+5 degrees
	IN/AL	8			n,		degrees
Qualitative Attrib	outes		and the second second	. 18	and the second		
Water Appearance:	BNo water		Furbid DShe	en 🗆 Sur	face 🗆 Algal 🗆	Other:	
	- No Water		оп	surface scu	m mats		
Substrate:	Bedrock	Boulder 🗆 C	cobble Grave	Sand	Silt/ clay Organic	Other:	
check all that apply)				~ ~ /	m) N	0/	
% of Substrate:	%	%	%	%%	<u> </u>	70	
Width of Riparian Zo	one: Vegeta	tive Layers:	1	and you was			
/ A	(check all	that apply)	Trees	: C] Saplings/Shrubs:	EKHerbs	
1/A 13	Avg. D	BH of Dominal	nts:	_in	in.	<u>in</u> .	
Dominant Bank Veg	jetation (list):	1.6					
WOOdway	rdia vi	rginica	5				
Aquatic Habitats (e)	submetged of eme	roed aquatic yeq	etation overhanging	banks/roots, leaf pag	ks. large submerged wood.	riffles, deep pools):
	(, cooninged of end						
(1001-0							
Aquatic Organisms	Observed (list):						
none							
T&E Species Obse	rved (list):						
NUNE							
Disturbances (ev. 1	vestock access mar	ure in waterbody	waste discharge pir	ces):			
NONE		iare in waterbody	weeke geonalige hit				
Tributary is:			/				
(check one)	Nat	ural	Artificial, man-	made 🔲 Mani	pulated		
Stream Quality * :	_			L/			
(check one)	🗆 Hig	h	Moderate	ELow			

				15	
			wohrouzt)		
		200			
	S-1	dev	r005 *		
	alentands A Tarlands	125			
) wchroozt	T N	
V	Vaterbody Sketch (In	clude north arrow, cent	terline, distance from centerline, data point lo	ation, survey boundary, and IDs of ass	ociated feature
N	lotes:		i formation (Common	and and a second se	Philadel (1) Second
	Low Quality: Channel is ac width on each side; lack of pollutants (algal mats, surfa from livestock or man.	ctively down cutting or w regeneration; filtering fu face scum, surface she	videning; rip rap and channelization excessiv unction severely compromised; banks unsta en); heavy odor; severe barriers to fish mov	; natural vegetation less than 1/3 of the le (eroding); water color is muddy and ement; little to no aquatic habitat; seve	active channe turbid; obvious ere disturbance
1	Moderate Quality: Altered or riparian vegetation only film; moderate odor; minor	channel evidenced by r moderately compromis barriers to fish moveme	ip-rap; natural vegetation extends 1/3-1/2 of sed; banks moderately unstable; water colo ent; fair aquatic habitat; minimum disturbanc	he active channel width on each side; fi is cloudy, submerged objects covered by livestock or man.	itering function I with greenis
r c	oots; water color is clear disturbance by livestock or	to tea-colored; no barr man.	riers to fish movement; many fish cover ty	es available; diverse and stable aqua	itic habitat; n
8 1	High Quality: Natural char	nnel natural vegetation	extends at least one or two active channe	widths on each side: banks stable an	d protected by



Waterbody schr005 facing west upstream



Waterbody schr005 facing east downstream

Photo Sheet 1 of 1 6-228

Linear Waterbody Data Sh	neet	AL MALL AND REAL	•				
Survey Description		and the second second					
Project Name:	Waterbody Name:	Waterbody ID: Date:					
ACP	UNT to D	Ismal Sump	schr004	7/30/15			
State: County/Paris	sh: Company	y: Ci	rew Member Initials: PI	notos: facing			
VA Che	sapeake EST	E-1 ,	RAM/CSM	NIE			
Tract Number(s):	Nearest	Milepost:	Associated Wetland I	Associated Wetland ID(s):			
27-002	the section sector and	70.5	NA	All selection of the			
(check one)	erline	Access Road	□Other:	Com and a contract A			
Physical Attributes							
(check one)	emeral Intermittent	Perennial					
Waterbody Type: (check one) □River [Stream	□ Canal					
OHWM Width: / 5 ft. OHWM In (check all that	ndicator: at apply)	ar line 🛛 Shelving Ik	□Wrested □S vegetation	couring Staining			
Height: <u>1,5</u> ft. UB N/AD	ent, matted, or missing □Wrad etation	ck line □Litter and debris	□Abrupt plant [community change	□Soil characteristic change			
Width of Waterbody - Top of W	idth of Waterbody - Toe of Sle	ope Width of Waterbod	y - Water Edge to Depth o	f Water:			
<u>ft.</u>	<u>ft.</u>		<u>2_</u> ft. N/A□	<u>1,5</u> ft.			
Sinuosity: A W	/ater velocity:	Bank height	Bank sl	ope			
(check one) (A)	pprox.)	Right:	+ -	Right: 10 degrees			
	fps	Left:		Left: 60 degrees			
			<u></u> tt.	degrees			
Qualitative Attributes							
(check one)		□Sheen □Surfa on surface scurr	ace □Algal □Other: n mats				
Substrate: Bedrock (check all that apply)	Boulder Cebble G	Gravel 🗆 Sand	Silt/ clay	ther:			
% of Substrate:%	%%	%% /	<u>%</u> %	%			
Width of Riparian Zone: Vege	atative Layers:						
Check (check	all that apply)	rees: 🖄	Saplings/Shrubs:	Herbs			
	DBH of Dominants:	in	<u>in</u>	in.			
Dominant Bank Vegetation (list):	the second	1	and the second second	100 JUL 35 1			
Liquidombar	stgracislua						
Aquatic Habitats (ex: submerged or er	merged aquatic vegetation, overhan	nging banks/roots, leaf packs	s, large submerged wood, riffles, d	leep pools):			
Aquatic Organisms Observed (list)	/ / / /	ITTE I					
None			-	7			
T&E Species Observed (list):		and the second	Personal Manager				
Den	e			5-2			
Disturbances (ex: livestock access, m	anure in waterbody, waste discharge	e pipes);		-			
Tributary is:	0,						
(dreck one) 🗌 Na	itural Artificial, ma	an-made 🗆 Manipul	ated				
(chedit oge)	gh Moderate	Low					
And a specific a second state of the	A REAL PROPERTY AND A REAL						

Waterbody ID: Schr 004 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Wchroozf 45 PFO × flow ViTch Road (weTlanks) Schr 004 e Man weber oozf



Waterbody schr004 facing west upstream



Waterbody schr004 facing east downstream

Photo Sheet 1 of 1 6-231



Non-tidal ditch data point DCHC001 facing south



Non-tidal ditch data point DCHC002 facing east

Linear Waterbody	/ Data Sheet					Charles Indi	+	
Survey Description	Ŋ							radius e
Project Name:		Waterbody Name:			Wate	erbody ID:	Date:	
ACP		LINT	to Disi	nal Sun	PS	chrOl	03	7/30/13
State:	County/Parish:	and a substance	Company:	and the second	Crew Mer	nber Initials:	Photos:	socing
VA	Chesapo	eake	ESI-	I	RAN	1/csm	NI	5.
Tract Number(s):	And the second second second	and the same survey	Nearest Milepo	ost:	As	ssociated Wet	land ID(s):	
27-0	02	uninain) ekietus	71				NA	ers the ac little
(check one)	Centerline	□Re-F	Route	Access Road		Other:		m so Ancoravit month
Physical Attributes	10							
Stream Classification: (check one)	Ephemera	l ⊡Inter	mittent	Perennial				
Waterbody Type: (check one)	River □ Str	eam XDito	ch 🗆 Can	al 🗆 Other	r.			
OHWM Width:ft.	OHWM Indica (check all that apply	tor:	□ Clear line on bank	□Shelvir	ng [v	□Wrested regetation	□Scourin	g Water staining
Height:ft.	□Bent, r vegetatio	natted, or missin n	g 🗆 Wrack line	□Litter a debris	nd [c	□Abrupt plant community char	□Soil d nge	characteristic change
Width of Waterbody - To Bank to Top of Bank:	op of Width	of Waterbody -	Toe of Slope W	/idth of Waterb	ody - Wat	er Edge to D	epth of Wate	er:
<u> </u>		<u>3</u> ft.			7 _{ft.}			<u>Z</u> ft.
	10/-4	un la situa	N	/AD		N.		
(<i>check one</i>) Straight □Meanderin	g N/A		ps	Right: Left:	/_ft. _/_ft.	B	Righ Righ	t: <u>90</u> degrees ft: <u>90</u> degrees
Qualitative Attribut	tes						1	
Water Appearance: (check one)	No water	Clear 🗆 Turl	oid ⊡Shee on s	en Asi	urface	□Algal □ mats	Other:	Sector
Substrate: (check all that apply) % of Substrate:	Bedrock 🗆 Be	oulder 🗆 Cob	ble 🗆 Gravel	□ Sand		y 🗆 Organic	Other:	
Width of Riparian Zone	Check all tha	e Layers: (apply) of Dominants:	□ Trees: i	۱.		s/Shrubs: n.	□ Herbs	n
Dominant Bank Vegeta	tion (list): ar Stc	racitic	na, Act	er ru	olun	n .		
Aquatic Habitats (ex: sy	pmerged or emerge	d aquatic vegetati	eat pa	anks/roots, leaf pa	acks, large si	ubmerged wood,	riffies, deep po	ols):
Aquatic Organisms Ob	served (list): None	obser	vel					93.0
T&E Species Observed	(list):	and the second	100	1				
	None						-	SHU MURRE MAN
non e	ock access, manure	in waterbody, was	te discharge pipes):				
Tributary is: (check one)	Natural	Ga	rtificial. man-ma	de 🗆 Mani	pulated			
Stream Quality *:		~		12.		NOTIFICATION OF		inter provident
(check one)	Hiah		loderate	Low				

Waterbody ID: Schr 003 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) reprost PFO weTland Jane Ŀ schr003 rs 0 Johr002f 3

Form Rev. 05/16/2014


Waterbody schr003 facing north upstream



Waterbody schr003 facing south downstream

Photo Sheet 1 of 1 6-234

Linear Waterbody Data Sheet

Survey Description			k	Water the star (D)	Data
roject Name:	Waterbod	y Name:		waterbody ID:	
ACP	UNT	to Dismal S	Wamp	SCHRUUT	1/24/15
tate: Count	ty/Parish:	Company:	Crew	Member Initials:	Photos: sacing
VA Ch	ifsa peake	ESI-1	- KA	MILSNI	N, J
ract Number(s):		Nearest Milepost		Associated Wetland	d ID(s):
27 - 006		72		WChre	101
Survey Type: check one)		Re-Route	Access Road	□Other:	
Physical Attributes	een politika haar oo ahaan ahaan ahaan ahaan ahaa				
Stream Classification:					
cneck one)	Dephemeral L	Jintermittent M	Perennial		
Naterbody Type: check one)	□ Stream	Ditch Canal	Other:		
OHWM OH	WM Indicator:	Clearling			
		on bank		vegetation	staining
Height:	Bent, matted, or	missing DWrack line	Litter and	□ Abrupt plant	□Soil characteristic change
N/ADft.	vegetation		debris	community change	
Width of Waterbody - Top of	Width of Waterb	ody - Toe of Slope Wic	th of Waterbody -	-Water Edge to Dept	h of Water:
	to Toe of Slope:	vva		(Appro	()
<u> </u>	<u> </u>	t. N/A	<u> </u>	ftN/A[π.
Sinuosity:	Water velocity:	Bar	nk height	Ban	k slope
(check one)	(Approx.)	14	Right: 8		Right: 0
Lottalgit		fps	Left:	ft.	Left:
	N/A		8	ft.	60 degrees
Qualitative Attributes					
Water Appearance:					
(check one) UNo w	vater 🛛 🖓 Clear	□Turbid □Sheer on su	n LSurface rface scum	e LIAlgal LIOt mats	her:
Substrate: Bed	Irock 🗆 Boulder (Cobble Gravel	Sand S	ilt/ clay	Other:
(check all that apply)	0/ 0/	0/ 0/	04 IC	Doc oc	70
	%% _	%%	% 10	/0 /0	70
Width of Riparian Zone:	Vegetative Layers:	N-			
ft	(check all that apply)	nants: H in		aplings/Shrubs:	
N/AB	AVD. UPH OF DOM			in	10
1	(approx.)		·	in.	in.
Dominant Bank Vegetation	(list): AVG. DBH of Dominication (list):	rubrum		in.	in.
Dominant Bank Vegetation	(list): rged or emerged aquatic	YUBTU M	nks/roots, leaf packs,	in.	in.
Aquatic Habitats (ex: subme	(<i>list</i>): rged or emerged aquatic	YUDYUM	nks/roots, leaf packs,	in. large submerged wood, nfi	in.
Aquatic Habitats (ex: submer Aquatic Organisms Observ	(<i>list</i>): rged or emerged aquatic ved (<i>list</i>):	YUDYU M	nks/roots, leaf packs,	in. large submerged wood, nf	in. Nes deep pools):
Dominant Bank Vegetation Aquatic Habitats (ex: subme へいっ そ Aquatic Organisms Observ	(<i>list</i>): rged or emerged aquatic ved (<i>list</i>):	YUBYU M	nks/roots, leaf packs,	in. large submerged wood, nf	in.
Dominant Bank Vegetation Aquatic Habitats (ex: subme COCC Aquatic Organisms Observ COCC T&E Species Observed (lis	(list): rged or emerged aquatic ved (list): t):	YUDYUM	nks/roots, leaf packs,	in. large submerged wood, nf	in. Tes deep pools):
Dominant Bank Vegetation Aquatic Habitats (ex: subme COCC Aquatic Organisms Observ COCC T&E Species Observed (<i>lis</i>	(<i>ist</i>): (<i>ist</i>): rged or emerged aquatic ved (<i>list</i>): <i>t</i>):	rubru m	nks/roots, leaf packs,	in. large submerged wood, nf	in.
Dominant Bank Vegetation	(list): rged or emerged aquatic ved (list): t): access manure in waterb	YUBYU vegetation, overhanging bar ody waste discharge pipes	nks/roots, leaf packs,	in. large submerged wood, rif	in.
Dominant Bank Vegetation Aquatic Habitats (ex: subme COCC Aquatic Organisms Observe COCC T&E Species Observed (//s COCC Disturbances (ex: livestock a COCC	(list): rged or emerged aquatic ved (list): t): access manure in waterb	vegetation, overhanging bai	nks/roots, leaf packs.	in. large submerged wood, nf	in.
Dominant Bank Vegetation Aquatic Habitats (ex: subme COCC Aquatic Organisms Observe COCC T&E Species Observed (<i>lis</i> COCC Disturbances (ex: livestock a COCC Tributary is: (check one)	(list): rged or emerged aquatic ved (list): t): t): Natural	vegetation, overhanging bai ody waste discharge pipes	nks/roots, leaf packs,	in. Iarge submerged wood, nf	in.

	Schr001
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on eac roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; disturbance by livestock or man.	ch side; banks stable and protected by diverse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active char or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, sub film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock of	nnel width on each side; filtering function omerged objects covered with greenish or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vege width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); w pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to from livestock or man.	tation less than 1/3 of the active channel vater color is muddy and turbid; obvious no aquatic habitat; severe disturbance
lotes:	
Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey b	ooundary, and IDs of associated features)
1	
	Director e andre de
the second	
Schr Øg	
25 JM- It 25 webrooif	
wehroozf	
The shart HIRRIT	11111111
HHHH Schr 99 HRRHHH	
A LE	

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Waterbody schr001 facing north upstream



Waterbody schr001 facing south downstream

Photo Sheet 1 of 1



Waterbody dchr001 facing north upstream



Waterbody dchr001 facing south downstream

Photo Sheet 1 of 1



Non-tidal ditch data point DCHC003 facing west

Linear Waterbody Data Shee	et			Canada and an
Survey Description			Materbady ID:	Date:
Project Name:	Waterbody Name:	2.0	Waterbody ID:	1017615
HCP	UNI to Disr	nal Swamp	SCHPUUZ	10/20/0
State: County/Parish:	Company	r: Crev	W Member Initials: Photos	Facing
VA Chesa	peake ESI	LF	-IIKIVI NI	S,EV
Tract Number(s):	Nearest N	Ailepost:	Associated Wetland ID(s):	
27-606	and there is a set	+1.3	None	
Survey Type: (check one)	e 🕅 Re-Route	□Access Road	□Other:	
Physical Attributes				
Stream Classification:				
(check one)	ral AIntermittent			
Waterbody Type: (check one)	ream 🔏 Ditch 🗆	I Canal 🛛 Other:		
OHWM OHWM Indic.	ator: by Clea on bank	r line □Shelving	Wrested Scourin vegetation	ng EWater staining
Height: <u>A</u> ft. Bent, vegetati	matted, or missing	k line CLitter and debris	□Abrupt plant □Soil of community change	characteristic change
Width of Waterbody - Top of Width	of Waterbody - Toe of Slo	pe Width of Waterbody -	Water Edge to Depth of Water	er:
Bank to lop of Bank: to loe	1 0	Water Euge.		0.3 #
_ <u>ft.</u>	<u> </u>	N/AD	_ft	<u></u> n.
Sinuosity: Water	velocity:	Bank height	Bank slope	
(check one) (Approx	,	Right: 4	Righ	t: 45 degrees
	fps	Left: L	Le	ft: 45 dograas
			<u>_n. </u>	degrees
Qualitative Attributes				
Water Appearance: (check one)	Clear □Turbid □	Sheen Surface on surface scum	□Algal □Other: mats	
Substrate: Bedrock B	oulder 🗆 Cobble 🗆 G	ravel Sand D Sill	t/ clay Organic Other:	
(check all that apply) % of Substrate: %	% %	% 90 % 10)%%_%	
With of Director Zone Magazati				
(check all the	at apply)	ees: 🔊 🖾 Sa	plings/Shrubs: 🕅 Herbs	
SU Avg. DBI	l of Dominants:	<u></u> in. <u></u> 2	in. <u>NA</u> i	n.
Dominant Bank Vegetation (list):		F. C.	- Ar	undinaria
Morella recifera N	lyssa sylvatila	Liriodendri	on tulipifera,	gigantea
Aquatic Habitats (ex: submerged or emerg	ed aquatic vegetation, overhang	ing banks/roots, leaf packs, lan	rge submerged wood, riffles, deep po	ols):
submerged logs	, leaf pack	< <u>5</u>		
Aquatic Organisms Observed (list):				
none observed				Real Andreas States
T&E Species Observed (list):				
none observed				
Disturbances (ex: livestock access, manure	in waterbody, waste discharge	pipes):		
none observed				
Tributary is:	Af Artificial	n mada	d	
Stream Quality *	Artificial, mai			
Stiedin Quanty .				

Waterbody ID: Schp 002 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) N *Schp002 Na wchrool schr062

Form Rev. 05/16/2014



Waterbody schp002 facing northwest upstream.



Waterbody schp002 facing southwest downstream.

Photo Sheet 1 of 2 6-240



Waterbody schp002 facing northeast across bank.

Linear Waterbody Data Sheet

rvey Description				Waterbady ID:	Date
ject Name:	Waterbody	Name:		Waterbody ID:	24 50072015
FCP	LINI to) Poetsmouth	1 Ditch	Sch8003	Internet and
te: Co	unty/Parish:	Company:	Cre		E LALA
A	intsapeate	EST	L	CEICOFT	ENIV
ct Number(s):	1.0	Nearest Milepo	st:	Associated Wetla	nd ID(s):
27	- P12	15.3	- 12.7	12 AV NORMAN	AN
rvey Type:		Re-Route [Access Road	□Other:	
vsical Attributes	The war as an area of	enanterite and enanteries			
ream Classification:	- (
eck one)	UEphemeral 78	Intermittent			
aterbody Type: eck one)	ver 🗆 Stream	(Ditch 🗆 Cana	I 🗆 Other:		
WM	OHWM Indicator: (check sli (hat apply)	🗆 Clear line on bank	□Shelving	□Wrested vegetation	□Scouring □Water staining
Height:	□Bent, matted, or n vegetation	nissing □Wrack line	□Litter and debris	□Abrupt plant community chan	□Soil characteristic change ge
lidth of Waterbody - Top	of Width of Waterbo	dy - Toe of Slope W	lidth of Waterbod	y - Water Edge to De	pth of Water:
ank to Top of Bank:	to Toe of Slope:	V	Valei Euge.		D.1 +
<u> </u>	ft.			ftN/	
inuosity:	Water velocity:	E	Bank height	Ba	ank slope
heck one)	(Approx)		Right: /	2.	Right: 75
/		fps	Left:	n.	Left: OD
	N/A			<u>l</u> ft.	
Qualitative Attribut	es				
Water Appearance: (check one)	No water Clear	□Turbid □She on	en ⊡Surfa surface scur	ace ⊡Algal ⊡ m mats	Other:
Substrate: 🛛	Bedrock D Boulder	Cobble Grave	I Sand D	Silt/ clay Organic	Cther:
(check all that apply) % of Substrate:	%%	20% 20	<u>% 50%</u>	10%%	<u> </u> %
Width of Riparian Zone $20_{\rm fl}$.	: Vegetative Layers: (check all that apply) Avg. DEH of Domi	nants:	in. X	Saplings/Shrubs:	Herbs
N/AD Dominant Bank Vegeta	(approx)				N 1 1
Impatiens	capensis, A	cer rubrur	n, Wood	SWardia arec	olata, Pinus faeda
Aquatic Habitats (ex: si Woody del	ubmerged or emerged aquatic	vegetation overhanging	; banks/roots leaf pac	ks large submerged wood	i nifies deer pools):
Aquatic Organisms Of	oserved (list):			A State of the State	
None	observed				
T&E Species Observe	d (list):				
None	observed				
Disturbances fex: the	stock access manure in water	oody waste discharge p	resi:		
Railroad	1				
Tributary is:					
(check one)	C Natural	Artificial, man	-made 🗆 Man	ipulated	
Stream Quality *:		Moderate			
(CHECK OTE)	- nigh	6-242	2.200	an and a loss like with the second	

		Scho 003
High Quality: Natural ch roots; water color is clea disturbance by livestock of	nannel, natural vegetation extends at least one or two active channel widths ar to tea-colored; no barriers to fish movement; many fish cover types ava or man.	on each side; banks stable and protected by ilable; diverse and stable aquatic habitat; no
Moderate Quality: Altere or riparian vegetation on film; moderate odor; mine	ed channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active ly moderately compromised; banks moderately unstable; water color is clou or barriers to fish movement; fair aquatic habitat; minimum disturbance by live	ve channel width on each side; filtering function dy, submerged objects covered with greenish estock or man.
Low Quality: Channel is width on each side; lack pollutants (algal mats, si from livestock or man.	actively down cutting or widening; rip rap and channelization excessive; natur. of regeneration; filtering function severely compromised; banks unstable (ero urface scum, surface sheen); heavy odor; severe barriers to fish movement;	al vegetation less than 1/3 of the active channel ding); water color is muddy and turbid; obvious little to no aquatic habitat; severe disturbance
Notes:		and a second a
Waterbody Sketch	(Include north arrow, centerline distance from centerline, data point location,	survey boundary, and IDs of associated features
	Ralifroad	
	in to schodd	2
	DIt Cr SUMMP	
	center line	PI
08/X		
Transfers Street		
dang dia salah s		
		\wedge
		N

Form Res of 16 2014



Waterbody scho003 facing west upstream.



Waterbody scho003 facing east downstream.

Photo Sheet 1 of 2 6-244



Waterbody scho003 facing north across bank.

Linear Waterbody Data Sheet

Survey Description					have been been been been been been been be	Datas	
Project Name:	ľ	Waterbody Nan	ne:		waterbody ID:	ng 20	115
FICT		DEEF	CREEK		schouu	01120	119
State: C	chesapea	Ke	Company: ESI	C	Crew Member Initials:	Photos: N,S,E	
Tract Number(s): 27-0	26-2003, 27	-026- hosy	Nearest Milepos	t:	Associated Wet	wcholds wch	0()04
27-026-A0012	7-026- A00	2	72.	8	1001,0002	, • • • • • • • • • • • • • • • • • •	0001
Survey Type: J (check one)	Centerline	□Re-R	loute 🗆	Access Road	□ Other:		
Physical Attributes					NEAR SHELLES & L		
Stream Classification: (check one)	Ephemeral	□Inten	mittent	Perennial			
Waterbody Type: (check one)		am 🗆 Ditc	h 🗆 Canal	Other:			
OHWM Width: 14 ft.	OHWM Indicato (check all that apply)	or:	Clear line	□Shelving	Wrested	□Scouring □Wa staini	ater ing
Height:ft.	Bent, ma vegetation	atted, or missing	g 🗆 Wrack line	□Litter and debris	Abrupt plant	□Soil characteristic ge	change
Width of Waterbody - To Bank to Top of Bank:	p of Width of to Toe o	f Waterbody - 1 f Slope:	Foe of Slope Wid Wat N/A	Ith of Waterboo ter Edge:	dy - Water Edge to De (Ap 2 ft. N/	pth of Water: prox.) ft.	
Sinuosity: (check one) Straight Meandering	Water vi (Approx.)	elocity: fp	Bar	k height Right: Left:	2f. 2f.	Right: <u>45</u> du Left: <u>45</u> du	egrees egrees
Qualitative Attribute	es		and the second s				
Water Appearance: (check one)	lo water	ear 🗆 Turbi	id □Sheen on surf	ace scun	ace 🗆 Algal 🗔 🖗 n mats	Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock 🗆 Bou	lder 🗆 Cobb	le 🗆 Gravel %%	©(Sand □ %	Silt/ clay	□ Other: %	
Width of Riparian Zone: <u>\()()</u> <u>ft</u> . N/A□ Dominant Bank Vegetati	Vegetative (check all that a Avg. DBH c (approx.) on (list):	Layers: ^{pply)} f Dominants:	Trees:	又	Saplings/Shrubs: 2in.	Herbs	
Arundinaria g Aquatic Habitats (ex: sub Large SUB)	igantea pr merged or emerged Merged V	aquatic vegetation	Mem (ang, N n, overhanging bank	Nurdahy s/roots, leaf packs	ia keisak Va a, large submerged wood, ri	(1/1/1/1/ CORYM files, deep pools):	bosum.
Aquatic Organisms Obs	erved (list):						
T&E Species Observed	list):				3		
Disturbances (ex: livestor BOX CUIVE	k access, manure in $V + S$	waterbody, waste	discharge pipes):				
Tributary is:	2/		ificial mon mode	C Manieul	atad		
Stream Quality * : (check one)	High		derate		aicu		

Form Rev. 05/16/2014

Waterbody ID: Schooo High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) N cscho007 W who007 W wcho 004 wchood3 Lorr dol strul 5ch0001 V Form Rev. 05/16/2014

6-247



Waterbody scho001 facing north upstream.



Waterbody scho001 facing south downstream.

Photo Sheet 1 of 2 6-248



Waterbody scho001 facing east across bank.

Linear Waterbody Data Sheet

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Lindar Tratorioou		and the second second second	1 - 1 - 2 - 2 - Coptant Ing & 1			
Survey Description	1 hA/atash	ody Name:	A Contraction of the second second	Waterbody ID:	D	ate:
Project Name:	vvater			scho001	57	2/10/16
HCF		Rep Creek	200000000000	Solution Initials	Photos:	=/:-1:0
State:	County/Parish:	Company:	No fee walk	L D AAS	N a	SF
VA	Chesape	ake ESI		LRIMS	101	5,6
Tract Number(s):	LINNUMB-QUE PAR	Local Nearest Mile	post:	Associated W	etland ID(s):	
77-076-1007	12-076-ADON		17.4	WC	nouuq	
Survey Type:	17000.00	14 p 1	El Assess Band	[]Other:		
(check one)	Centerline	Re-Route	LIACCESS Road	Liother.		
Physical Attributes	State of the state	A DESCRIPTION OF THE	CALLS AN AUDION	The state of the second		Contraction of the second s
(check one)		□Intermittent	Perennial			
Metashadu Tuna:		a line book in the second second	<u> </u>			
(check one)	River X Stream	🗆 Ditch 🛛 Ca	inal 🗆 Other.			
Width: 20 ft.	OHWM Indicator: (check all that apply)	Clear lin on bank	e 🗆 Shelving	g DWrested vegetation	Scouring	□Water staining
Height: <u>3</u> ft.	Bent, matted, over	or missing ⊡Wrack lin	ne DLitter ar debris	nd DAbrupt plan community ch	t ⊡Soil ch ange	aracteristic change
N/ALJ Width of Waterbody - T	op of Width of Wate	rbody - Toe of Slope	Width of Waterbo	ody - Water Edge to	Depth of Water:	
Bank to Top of Bank:	to Toe of Slop	9:	Water Edge:		(Approx.)	3.
25 ft.	15	_ft.	2	_ <u>O_</u> ft.		<u>ft</u> .
				and the second second second	Bank slope	
Sinuosity:	Water velocity (Approx.)		Bank neight		Right:	115
□Straight		fps		<u> </u>	Left	<u>75</u> degrees
Maanderi			Left:	Y _{ft.}	Leit	30 degrees
Riveandern		CONTRACTOR OF THE PER	HAR BEILDER DER TER			NEW PRINCIPAL OF
Qualitative Attribu	tes					
Water Appearance: (check one)	No water	□Turbid □Sh on	een 🗆 Su surface sci	rface □Algal I um mats	□Other:	
Substrate: C	Bedrock D Boulder	Cobble Grave	el 🕅 Sand)	Silt/ clay Organic	: 🗆 Other:	
% of Substrate:	%%	%	% 60%	40%%	<u>%</u> %	
Width of Piparian Zong	. Venetative Laver					
	(check all that apply)	Trees	i: J	Saplings/Shrubs:	Herbs	
IUU ft.	Avg. DBH of Dom	inants: 5	_in	in.	<u>_N/f1_in</u> .	a construction of the
Dominant Bank Vegeta	ition (list):	a subscription of the second		0		
Anndinari	a gigante	a, Leucoth	oe sp.,	Quercu.	s nigro	N
Aquatic Habitats (av. e	ubmerged or emerged aquatic	vegetation, overhanging	banks/roots, leaf pac	cks, large submerged wood	I, riffles, deep pool	5):
leaf Pau	ks, subm	erged w	bood			
Aquatic Organisms Of	served (list):	1				
none	observe	2		And and a second second second	L Waland P (1999)	
none	observer	4				
Disturbances (ex: lives	ock access, manure in watert	ody, waste discharge pip	es):	P. C. T. C.		
none 1	observed		19			and a state of the
Tributary is: (check one)	Natural	🗆 Artificial, man-m	nade 🗆 Manip	oulated	and the second second	
Stream Quality *: (check one)	High	Moderate	Low			

Waterbody ID: school_s2 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) wch0004 100 Ve ch0007 wcho DOY scho DO/ Form Rev. 05/16/2014

6-251



Waterbody data point scho001_s2 facing north upstream.



Waterbody data point scho001_s2 facing south downstream.

Photo Sheet 1 of 2 6-252



Waterbody data point scho001_s2 facing east across.

Linear Waterbody Data Sheet

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Survey Description	
Project Name: Waterbody Name: Waterbody ID:	Date:
ACP UNT to Doep creek scho OC	09/30/15
VA Chesapeake ESI Crew Member Initials: Chesapeake ESI C-J, S.I	NE, SW, NW
Tract Number(s): 27-026-A006 Nearest Milepost: Associated Wetta	nd D(s):
27-026-A003 27-026-A004 +2,8 WChOD	UT
(check one) Centerline Re-Route Access Road Other:	
Physical Attributes	
Stream Classification:	
Waterbody Type: (check one)	
OHWM Width:ft. OHWM Indicator:Clear lineShelvingWrested vegetation	□Scouring □Water staining
Height:ftftftBent, matted, or missing DWrack lineLitter andAbrupt plantdebrisdebrisdebris	□Soil characteristic change le
Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to De	oth of Water:
Bank to Top of Bank: to Toe of Slope: Water Edge:	rox.)
$ ft.$ $ ft.$ $N/A \Box$ $ft.$ $N/A \Box$	π.
Sinuosity: Water velocity: Bank height Ban	nk slope
(check one) (Approx.) Right: 3	Right: QG
fpsft.	Left: degrees
Meandering N/AD	<u>to</u> degrees
Qualitative Attributes	
Water Appearance:	
(check one) UNo water Clear UTurbid USheen USurface UAlgal UO on surface scum mats	ther:
Substrate: Bedrock Boulder Cobble Gravel Sand Silt/ clay Organic	Other:
% of Substrate:%%%%%%%	%
Width of Riparian Zone: Vegetative Lavers:	
(check all that apply) CTrees: Saplings/Shrubs:	Herbs
N/A Avg. DBH of Dominants:inin.	<u>NH</u> in.
Dominant Bank Vegetation (list):	
Murdannia koirak Rubuc Argutuc Wardwardia aroolata. Lon	cera iaponica.
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riff	es, deep pools):
Leaf packs, woody dobris pools	
Aquatic Organisms Observed (list):	
BOX TURTLE, Fish	
T&E Species Observed (list):	
none observed	
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):	
none observed	
Tributary is:	
Stream Quality *:	
(check one) High Moderate Low	

Form Rev. 05/16/2014

- - og matil 21. juli

Waterbody ID: Schol High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) , wcho 004 scholol W W Wch0002 schoood W wcho003. shan corridor Form Rev. 05/16/2014

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Waterbody scho002 facing northeast upstream.



Waterbody scho002 facing southwest downstream.

Photo Sheet 1 of 2 6-256



Waterbody scho002 facing northwest across bank.

Desertation	COL		Contraction of the second	and the local data from shore an other star with		
survey Description			a state to be	Matarbadu ID:		Date:
roject Name:	Waterbody Name:	6	-14	waterbody iD:	117	2110111
HCP	4NT to L	leep (re	ex	Schol	10	2110110
State: County/Parish	h: Co	mpany:		Crew Member Initia	ls: Photos	Facing
VA Chesa	apeake	ESI		LR, MS	E,V	Vis
'ract Number(s):	Ne	arest Milepost:		Associated	Wetland ID(s):	
27-026-14006,27-	-026-A005	77.5		W	cho009	A States
theck one)	rline 😡 Re-Rou	te □A	ccess Road	DOther:	BOUNDARY PROPERTY	1.57 (1.59 (P. 16 (P. 16))
hysical Attributes			等的思想是			
tream Classification: theck one)	neral ØIntermit	tent DPe	erennial			
Vaterbody Type: theck one)	Stream 😡 Ditch	🗆 Canal	Other:			
HWM OHWM Ind Width: 2 ft.	licator: apply) E	Clear line on bank	Shelving	□Wrested vegetation	□Scourin	ig ⊡Water staining
Height: 0.5 ft. Veget	nt, matted, or missing lation	□Wrack line	DLitter an debris	d DAbrupt pla community	ant ESoil change	characteristic change
Width of Waterbody - Top of Wid	Ith of Waterbody - Toe	of Slope Width	of Waterbo	dy - Water Edge to	Depth of Wate	er:
Bank to Top of Bank: to T	foe of Slope:	Water	Edge:	-	(Approc.)	04.
<u> </u>	ft.			<u> ft</u> .	N/A	<u> </u>
14/-	tarvalasitur	N/ALL Bank	height		Bank slope	
check one) (App	rox.)	Dalik	Right		Righ	it: SD
Distraight	fps			<u>)</u> ft.	1.	degrees
	Л	Section 2 Sec. 2	Len:	1_ft.		5D degrees
	REPORTATION AND A	COLUMN TOWN	14 15 19 18 18 18 18 18 18 18 18 18 18 18 18 18	A CARLER CONTRACTOR		· · · · · · · · · · · · · · · · · · ·
Qualitative Attributes			A STATISTICS	AND AND THE PARTY AND A		A CONTRACTOR OF CONTRACTOR
check one)		□Sheen on surfac	⊡Sur e scu	face □Algal m mats	□Other:	
Substrate: Bedrock	Boulder 🗆 Cobble	Gravel	Sand 1	Silt/ clay D Organ	nic 🗌 Other:	
check all that apply) % of Substrate: %	% %	%	60 %	40 %	_%%	
· · · · · · · · · · · · · · · · · · ·		TATION				and a second
Nidth of Riparian Zone: Vegeta	tive Layers:	Trees:	4	Saplings/Shrubs	Herbs	
2 C	BH of Dominants:	in.	۹ر	L in	NA	n
SD ft. Avg. D	Di Dominanto.	the second se			Statement of the local division of the local	
IAD 50 ft. Avg. D (approx.)	En of Bonnianer			<u> </u>		
<u>JO ft</u> . Avg. D (approx.) Iominant Bank Vegetation (list):		Charles	Mace	10 100	fera	
VAD <u>SU ft.</u> Avg. D (approx.) Dominant Bank Vegetation (list): PINUS TARDA,	sonws e	ffusus,	More	illa ceri	ifera	
Dominant Bank Vegetation (list): Pinus taeda, uquatic Habitats (ex: submerged or eme	SUNCUS E	HOSUS, verhanging banks/r	Mo re	clla Cerri	ifera	ols):
Dominant Bank Vegetation (list): PINUS TAEda, Aquatic Habitats (ex. submerged or eme leaf packs	Sonces e arged aquatic vegetation, o	Pfusus, verhanging banks/r	MD G oots, leaf pac	s, large submerged wo	fera ood, riffies, deep po	ols):
Dominant Bank Vegetation (list): PINUS TAEda, Aquatic Habitats (ex: submerged or eme LEAF PACKS Aquatic Organisms Observed (list):	SUNCUS C	Pfusus, verhanging banks/r	MD Ce	s, large submerged wo	ifera ood, riffles, deep po	ols):
<u>Auguatic Organisms Observed (list):</u> <u>Auguatic Observed (list):</u>	SUNCUS E erged aquatic vegetation, o	HOSUS, verhanging banks/r	- More oots, leaf pac	s, large submerged wo	ifera ood, riffles, deep po	ols):
SU ft. Avg. □ VA□ (approx.) Dominant Bank Vegetation (list): Pinus faeda, i Aquatic Habitats (ex. submerged or emeleaf packs Aquatic Organisms Observed (list): Mone observed (list): Mone observed (list): None observed (list):	SUNCUS E erged aquatic vegetation, o ved	Pfusus, verhanging banks/r	- More oots, leaf pac	s, large submerged wo	i fera vod, riffles, deep po	ols):
SU tt. Avg. D VA□ (approx.) Dominant Bank Vegetation (list): Pinus taeda, Pinus taeda, Pinus taeda, Aquatic Habitats (ex. submerged or emeled packs Aquatic Organisms Observed (list): None observed T&E Species Observed (list): None observed Disturbances (ex. livestock access. man	Sonces e erged aquatic vegetation, o ved ed	Pfosos, verhanging banks/r scharge pipes):	- More oots, leaf pac	s, large submerged wo	ifera vod, riffies, deep po	ols):
<u>Autic Organisms Observed (list):</u> <u>Pinus Taeda,</u> <u>Aquatic Habitats (ex. submerged or ema</u> <u>leaf packs</u> <u>Aquatic Organisms Observed (list):</u> <u>None Observed</u> <u>Disturbances (ex. livestock access, man</u> <u>None Observed</u>	Sunces e erged aquatic vegetation, o ved ed nure in waterbody, waste di ved	PHOSUS, verhanging banks/r scharge pipes):	- More oots, leaf pac	s, large submerged wo	ifera ood, riffles, deep po	ols):
SD tt. Avg. D VA□ (approx.) Dominant Bank Vegetation (list): Pinus tacda, Pinus tacda, Pinus tacda, Aquatic Habitats (ex. submerged or emailed packs) Aquatic Organisms Observed (list): Mone observed Tac Species Observed (list): None observed Disturbances (ex. livestock access, maning None observed None observed Tributary Is: Check one)	SUNCUS E erged aquatic vegetation, o ved ed ure in waterbody, waste di ved ural	PHOSUS, verhanging banks/r scharge pipes): ial, man-made	Oots, leaf pac	ulated	ifera ood, riffles, deep po	ols):

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Waterbody data point scho013 facing east upstream.



Waterbody data point scho013 facing west downstream.

Photo Sheet 1 of 2 6-260



Waterbody data point scho013 facing south across.

inear Waterboo	dy Data Sheet			A	
urvey Description	on h	Vatarbody Nama:		Waterbody ID:	Date:
roject Name:		11. TI A	- Crack	SCho	014 2/11/12
HUY		UNI TO U	ep lieer	Craw Mambar Initia	Is: Photos: C.
tate:	County/Parish:	Compa	ny: 1	Crew Member Initia	is. Faling
VH	Chesape	ake t	SL .	LK, MS	N,5,6
ract Number(s):		Neares	t Milepost:	Associated	Wetland ID(s):
27-046,	27-047	1	8.3	WCV	10 011
Survey Type:		Re-Route	□Access Roa	d 🛛 Other:	
		THE PARTY OF THE P	and country and	的时间的复数形式	
Stream Classification	:				and the second
check ane)	Ephemeral	Intermittent	□Perennial		and the second
Waterbody Type:		- Ditch		r.	
cneck one)		III A DICH			a la serie de l
OHWM .	OHWM Indicato	r: Xici	ar line Shelvi	ng DWrested	□Scouring □Water
Width: <u>ft</u> .		on ba	nk	vegetation	staining
Height:	Bent, ma	tted, or missing DWr	ack line DLitter a	and DAbrupt pl	ant Soil characteristic char
ft.	vegetation	the state of the state of the	debris	community	change
Width of Waterbody -	Top of Width of	Waterbody - Toe of S	lope Width of Water	body - Water Edge to	Depth of Water: (Approx.)
Bank to Top of Bank:	to Toe o	Slope:	water Edge:	2	D.5 #
ft.	_	<u>ft.</u>	N/A	<u>ft</u> .	N/A
Sinuceltr	Water ve	locity:	Bank height		Bank slope
check one)	(Approx.)		Right:	2	Right: 9D degre
Jastraight		fps	Left:	<u> </u>	Left: 00
□Meander	ing N/A		and the second second	<u>f</u> t.	<u>10</u> degre
Qualitative Attrib	utes		Test the second of		
Water Appearance:	lico				Dother
check one)	No water CI	ear 🗆 Turbid	On Surface State	cum mats	
			Gravel A Sand	VI Silt/ clay D Orga	nic 🗆 Other:
check all that apply)			70	30 "	0/ 0/2
% of Substrate:	%	.%%	%%	%	_7878
Width of Riparian Zor	e: Vegetative	Layers:			El Uarba
20 +	(check all that a	(Dominants:	Trees:	Saplings/Shrubs:	NA in.
VAC	(approx.)	- Dominiants.	<u> </u>	The second secon	The second s
Dominant Bank Vege	tation (list):	in de la	a character	1. Marinadi	navia ataunta
Clethra o	Initoliail	-iguicamba	r styrautil	A I munici	naria gigania
Aquatic Habitats (ex	submerged or emerged	aquatic vegetation, overha	anging banks/roots, leaf pa	acks, large submerged wo	ood, riffles, deep pools):
leat Pac	45				and the second second
Aquatic Organisms O	bserved (list):	and the second second		and the second states of	and the second
None D	bserved				
TRE Species Observe	ad (list):				
ALO D	observed				
NOVIE		waterbody waste dischar	ne pipes):		
Disturbances (ex. live	L. 19 c	Materiology, waste discitat	2 power	line ROI	N
ditch be	tween n	MILES MIL	- 1	and the second	
Tributary is:		TA Artificial	nan-made 🗖 Mani	ipulated	
Stream Quality *:					
(check one)	High	Moderate	Low		and a strain of the state of the state of the

C

Waterbody ID: scholl4 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Nicholl data pain scholly Form Rev. 05/16/2014



Waterbody data point scho014 facing north upstream.



Waterbody data point scho014 facing south downstream.

Photo Sheet 1 of 2 6-264



Waterbody data point scho014 facing east across.

Linear Wate	rbody I	Data	Sheet
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Survey Description	1				Carego in such by		
Project Name:		Waterbody Name):		Waterbody ID:	0+	Date:
ACP		UNTTO	DEEDC	ever	Schoo	US	10/10/15
State:	County/Parish:	c	ompany:		Crew Member Initial	s: Photos	
VA	chesap	eate	±S1		K.M. C.I.	W.	E, N
Tract Number(s):		N	earest Milepos		Associated V	Vetland ID(s):	
21-051			16.3		NA		
(check one)	Centerline	□Re-Ro	ute 🗆	Access Road	Other:		
Physical Attributes	1						
(check one)	□Ephemera	I 🗆 Intermi	ittent	Perennial			
Waterbody Type:		0.1					
(check one)	River 🗆 Stre	eam Ditch	Canal	Other:			
OHWM Width:ft.	OHWM Indicat (check all that apply	or:)	Clear line on bank	Shelving	□Wrested vegetation	Scouri	ng ⊡Water staining
Height: <u><0 -1</u> ft.	□Bent, m vegetation	natted, or missing	Wrack line	□Litter an debris	d	nt ⊡Soil hange	characteristic change
Width of Waterbody - To Bank to Top of Bank: ft.	op of Width of to Toe o	of Waterbody - To of Slope: 0ft.	e of Slope Wid Wat N/A	th of Waterbo er Edge: 	ody - Water Edge to	Depth of Wat (Approx.)	er: 0 - 1_ft.
Sinuosity: (check one) Straight	Water v (Approx.) 9 N/A	velocity: fps	Ban	k height Right: Left:	3 <u>f</u> t. S <u>f</u> t.	Bank slope Rig Le	nt: <u>46</u> degrees
Qualitative Attribut	es						
Water Appearance:	V					12	
(check one)	No water 🖾 🖸	lear 🗆 Turbid	□Sheen on surf	⊡Sur ace scu	face 🗆 Algal Im mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobble _%%	Gravel	Sand 5	Silt/ clay □ Organ	ic	
Width of Riparian Zone	Check all that	e Layers: apply) of Dominants:	Trees:	Card P	Saplings/Shrubs:	Herbs	in.
Dominant Bank Vegeta	tion (list):	A				1	
Morella ceri.	fera All	1 rubrum	Prunu	s sero	tina, mow	ed gras	ses.
Aquatic Habitats (ex: su Ground a	bmerged or emerged	aquatic vegetation,	overhanging bank	s/roots, leaf pack	ks, large submerged woo	od, riffles, deep po	ols):
Aquatic Organisms Ob Mosquitofish	served (list):						
T&E Species Observed	(list):						
Disturbances (ex: livesto	ck access, manure in	n waterbody, waste d	ischarge pipes):				
ATTITUA	MMU-1	and ou	10	E New M		and the second	
Cributary is: (check one)	□ Natural	Artifi	cial, man-made	🗆 Manipu	ulated		
Stream Quality * : (check one)	- High	□ Mod	erate	Low			

Waterbody ID: Scho 005 High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) OCHOODOL OPEN WATER 5 Schooldy Scho005 5 chol06


Waterbody scho005 facing west upstream.



Waterbody scho005 facing east downstream.

Photo Sheet 1 of 2 6-268



Waterbody scho005 facing north across bank.

Open Waterbody Data Sheet

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Survey Description			Server Server		
Project Name:	Waterbody N	lame:	Wate	rbody ID:	Date:
ACP	LIN	Nomes Prino	0	cho 001	10/15/15
State: Count	/:	Company:	Crew Mem	ber Initials:	Photos:
VA Ch	esapeake	EST,	K-M.	ST	NW, NE
Tract Number(s):	and the second second second	Nearest Milepost:	Asso	ciated Wetland	ID(s):
27-051	annos a content a content	15.3			AN
Survey Type: (check one)	⊠Centerline □R	e-Route	d D	Other:	
Physical Attributes					
Waterbody Type: (check one) Stock Pond	Natural Pond Lat	ke 🗆 Reservoir 🗆 Impoundme	nt 🗆 Oxb	ow Other:	stormwater
Hydrologic Regime: Hydrologic Regime:	ermanently Flooded	Semipermanently Flooded	Seasonall	y Flooded	Temporarily Flooded
ОНWM	OHWM Indicator:				
Height: N/A	check all that apply)	Clear line She on bank	ving	☐Wrested vegetation	□Scouring □Water staining
<u> </u>	Bent, matted, or m vegetation	issing □Wrack □Litte line debris	rand	Abrupt plant	t □Soil characteristic change ange
Depth of Water:	Bank heig	ht (average):	B	ank slope (aver	age):
>3 #		NA .			45 degrees
N/A□		it. *		-	
Qualitative Attributes					
Water Appearance: (check one) □No w	ater ⊡Clear ये	urbid Sheen S on surface scu	urface n	□Algal □ mats	Other:
Substrate: Greek all that apply)	rock 🗆 Boulder 🗆 Co	obble 🗆 Gravel 🗆 Sand	Silt/ cla	y 🗆 Organic	Other: NA
% of Substrate:	%%	%%_%	%	%	%
Width of Riparian Zone:	Vegetative Layers: (check all that apply)	Trees:	Saplings	/Shrubs:	Herbs
ft·			1		NIA
N/A	Avg. DBH of Dominants	in.	in	•	<u>r 4/13</u> in.
Dominant Bank Vegetation (list):			The second second	
Salix nigia, M	orella cerifera	a, Bacchanis halin	ifolia	Lespede	za cuheata
Aquatic Habitats (ex. submerged	d or emerged aquatic vegetation, o	verhanging banks/roots, leaf packs, large su	ormerged wood	, riffles, deep pools, ϵ	etc.):
LUCOP VILLOT, O	d (list):	gennin, energer	21	J.	
Fish	a (<i>ust</i>):				
T&E Species Observed (list):					1052.5
NA					
Disturbances (ex: livestock acc Man made st	orn water po	aste discharge pipes): nd	Lo _{en} ,		JES (
Waterbody is:	the second second second		1.1710	an ann an	
(check one)	Natural Artificia	al, man-made 🛛 Manipulated			and the second second
Waterbody Quality * : (check one)	High Moderate	e 🗆 Low			

Rint: *

Waterbody ID: scho 001 High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features) N och 002 Jch006 Jaho004 944005

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Environmental Field Surveys Open Water Point Photo Page



Open Waterbody ocho001 facing northwest.



Open Waterbody ocho001 facing northeast.

Photo Sheet 1 of 1 6-272



Waterbody dcho006 facing north upstream.



Waterbody dcho006 facing south downstream.

Photo Sheet 1 of 2 6-273



Waterbody dcho006 facing east across bank.

Open Waterbody Data Sheet

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Survey Description	1						
Project Name: ACP	Wat	erbody Name:	Paul	aves 125	Ocho 002	D.	ate:
State: VA	ounty: Chesapeak	Company L ES	-1000	Crew	Member Initials: $M, S.T$	Photos:	,NW
Tract Number(s): 27-065		Nearest M	filepost: . V	ľ	Associated Wetland	ID(s):	,
Survey Type: (check one)	⊠Centerline	□Re-Route	□Access	Road	□Other:		
Physical Attributes	;						
Waterbody Type: (check one)	Pond 🗆 Natural Pon	d 🗆 Lake 🗆 Re	servoir 🗆 Impound	Iment 🗆	Oxbow Other:	stormv	vater
Hydrologic Regime: 1	Permanently Floor	ded 🗆 Semiperi	nanently Flooded	□ Seas	onally Flooded	Temporarily	Flooded
OHWM Height: N/A e	OHWM Indicator (check all that apply)	: on	Clear line □S bank	Shelving	□Wrested vegetation	Scouri	ng ⊡W stair
<u> </u>	Bent, mat vegetation	ted, or missing lin	Wrack □L e det	litter and		□Soil char inge	acteristic cha
Depth of Water: ≥ろ	_ft.	ank height (averag	e): NA_ft		Bank slope (avera	age):	ees
Qualitative Attribut Water Appearance: (check one)	t es No water DClear	· □Turbid	□Sheen		□ Algal □ C	Other:	
	Ft.		on surface	scum	mats		
Substrate: (check all that apply) % of Substrate:	Bedrock Boulde	r 🗆 Cobble 🗆	Gravel Sand	□ Sil %	t/ clay □ Organic	Other:	NA
Width of Riparian Zone	Check all that apply)	ers:	Trees:	🗆 Sap	lings/Shrubs:	Herbs	
NIA	Avg. DBH of Do (approx.)	ominants:	in.	-	in.	_ <u>N/A_</u> in.	
Mowed and	maintained	lown g	rasses	ane	herbs.		
Aquatic Habitats (ex sub Deep Worth	merged or emerged aquatic v	egetation, overhanging ba	anks/roots, leaf packs, larg	e submerged	l wood, riffles, deep pools, et	ic.):	
Aquatic Organisms Obs Paper pondsh	ell, largemo	uth bass, k	luegill, mos	quitol	ish och		
T&E Species Observed	(list):						
Disturbances (ex: livesto Man Mad	ck access, manure in wat	erbody, waste dischar NOHOF PO	ge pipes): Nd	Y.			
Waterbody is: (check one)	D Natural	Artificial, man-ma	ide 🗆 Manipula	ited			

	waterbody ID:				
	aho002				
High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and pro- parriers to fish movement; many fish cover types available; diverse and stable aquatic habitat;	otected by roots; water color is clear to tea-colored; no ; no disturbance by livestock or man.				
Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel only moderately compromised; banks moderately unstable; water color is cloudy, submerged ot barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.	width on each side; filtering function or bank vegetation bjects covered with greenish film; moderate odor; minor				
Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.					
otes:					
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	The second second second				
A Constant of the second se A second s	and the second				
Vaterbody Sketch (Include north arrow, centerline, distance from centerline, data point loc	cations, survey boundary, and IDs of associated features)				
N	Law and				
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	or the state for and the state of the				
	\frown				
5					
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12006	ochoOOL				
gen	a new market and a second or a second of				
	The Burnish Star Star				
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	the reserves in the second				
in antiparticipation of the second	Construction of the second				
	And a second				
	and the second sec				

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Environmental Field Surveys Open Water Point Photo Page



Open Waterbody ocho002 facing northeast.



Open Waterbody ocho002 facing northwest.

Photo Sheet 1 of 1 6-277

Open Waterbody Data Sheet

Survey Description					
Project Name:	Waterbody	Name:	Waterbody	ID:	Date:
ACP	PON	D	ocho	003	10/20/15
State: VA County Chec	apeake	Company: ESI	Crew Member Ini	itials: Photos: SE	SW
Tract Number(s):		Nearest Milepost:	Associated	Wetland ID(s):	
27-116,27-1	17	76.3	N/A		
Survey Type: (check one)	Centerline	Re-Route	oad DOther		
Physical Attributes					
Waterbody Type: (check one) Stock Pond	Natural Pond La	ake 🗆 Reservoir 🗆 Impoundr	nent 🗆 Oxbow 🗆	Other:	
Hydrologic Regime:	ermanently Flooded	Semipermanently Flooded	Seasonally Flood	ded 🗆 Temporari	y Flooded
OHWM (4)	DHWM Indicator: check all that apply)	Clear line Si on bank	nelving ⊡Wr veget	ested Score	uring ⊡Water staining
ft.	□Bent, matted, or n vegetation	nissing 🗆 Wrack 🗆 Li line debr	tter and □Abi is comm	rupt plant □Soil ch nunity change	aracteristic change
Depth of Water:	Bank heig	ht (average):	Bank slo	ope (average):	
N/A□ <u>2_ft</u> .		ft. /		<u>40</u> de	grees
Qualitative Attributes					
Water Appearance: (check one)	ater 🗆 Clear	Furbid □Sheen □ on surface se	ISurface □Alga cum mats	I Other:	
Substrate: Bedr (check all that apply)	rock 🗆 Boulder 🗆 C	cobble 🗆 Gravel 💆 Sand	Silt/ clay □ C	Organic 🗆 Other:	
% of Substrate:	%%	%%%	%	%%	
Width of Riparian Zone:	Vegetative Layers: (check all that apply)	Trees:	Saplings/Shrubs	s: Herbs	
N/A	Avg. DBH of Dominant (approx.)	s:in.	in.	N/A i	n.
Dominant Bank Vegetation (list): tyraciflua,	Andropogon Virgin	vieus mowed	d/maintaine	d grass/herbs
Aquatic Habitats (ex: submerged	f or emerged aquatic vegetation,	overhanging banks/roots, leaf packs, large	submerged wood, riffles, d	eep pools, etc.):	
DOOD SHUNDIN	o water				
Aquatic Organisms Observe	d (list):				
NONE					
T&E Species Observed (list):					
Disturbances (ex: livestock acc	ess, manure in waterbody, w	vaste discharge pipes):	,		
Artificial st	ormwater	retention pon	0 -		P.
Waterbody is: (check one)	Natural Artifici	ial, man-made 🛛 Manipulat	ed		
Waterbody Quality * : (check one)	High Moderate	e XLow		R.	

an an Alle State Va

	Waterbody ID: OCh 0 00 3	
High Quality: Natural, na barriers to fish movemen	atural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; t: many fish cover types available; diverse and stable aquatic babitat; no disturbance by livestock or man	; no
Moderate Quality: Altere only moderately comprom barriers to fish movemen	d by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetat nised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; mi t; fair aquatic habitat; minimum disturbance by livestock or man.	tion inor
Low Quality: Rip rap and filtering function severely surface sheen); heavy od	d channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regenerati compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scu for; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.	ion; um,
lotes:		reneng Al ^a n A
aterbody Sketch (In	nclude north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated feat	tures)
T		
N		
	int	
-	dota Port	
	1= ocho003	

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Waterbody ocho003 facing southeast.



Waterbody ocho003 facing southwest.

Photo Sheet 1 of 1

Linear Waterbody Data Sheet

Survey Descriptio	n				
Project Name:	Wate	rbody Name:		Waterbody ID:	Date:
ACT	1	INT to Desp	CREEK	Schoolz	12/15/15
State:	County/Parish:	Company:	Cre	w Member Initials: Phot	os:
VH	Chesapeak	e ESI	- (RT, LR W	ES
Tract Number(s):		Nearest Mil	epost:	Associated Wetland ID(s):
27-177		4	81.0	NA	
Survey Type:	de la r				We wanted and the second
(check one)	Centerline	LIRe-Route			
Physical Attribute Stream Classification	<u>)S</u>				
(check one)	Ephemeral	赵Intermittent	□Perennial		
Waterbody Type: (check one) [□River □ Stream	Ditch 🗆 C	anal 🗆 Other:		
OHWM Width: 3 ft.	OHWM Indicator: (check all that apply)	Clear lin on bank	ne DShelving	□Wrested □Sco vegetation	uring DWater staining
Height:ft.	□Bent, matted vegetation	, or missing DWrack I	ine □Litter and debris	□Abrupt plant □S community change	oil characteristic change
Width of Waterbody -	Top of Width of Wat	terbody - Toe of Slope	Width of Waterbody	- Water Edge to Depth of W	/ater:
Bank to Top of Bank:	to loe of Slo	pe:	vvater Edge:	(opprox.)	
ft.		ft.	N/A□	ftN/A 🗆	<u> </u>
Sinuosity:	Water veloci	ty:	Bank height	Bank slope	9
(check one)	(Approx.)	De	Right: Z	- ft R	ight: 86 degrees
	-	tps	Left: 7		Left: SD dogmos
				_π.	
Qualitative Attribu	utes				
(check one)	No water	□Turbid □St or	neen 🗆 Surface	e □Algal □Other: mats	
Substrate: [(check all that apply) % of Substrate:	Bedrock Delder	Cobble Grav	el ⊠ Sand A Si _% <u>30 %</u> 77	ilt/ clay	. %
Width of Riparian Zon	e: Vegetative Lave	rs:			
7.D.	(check all that apply)	,⊠ Tree	s: 🕅 Sa	aplings/Shrubs: 12 Her	DS
<u> </u>	Avg. DBH of Do (approx.)	minants:	_in	inNF	<u>_</u> in.
Juncus ef	ation (list):	uidambar	- styraci	flua, Morella	cerifera
Aquatic Habitats (ex: s	submerged or emerged aquat	ic vegetation, overhanging	banks/roots, leaf packs, la	arge submerged wood, riffles, deep	pools):
leaf pack	-5				Maria and State
Aquatic Organisms O	bserved (list):				
none	and the second states	State of the second second		Carl Constant States of the States	And Street and
T&E Species Observe	d (list):	2/ 5/ 10/2			
none					
Disturbances (ex: lives	tock access, manure in water	rbody, waste discharge pip	es):	1-410	
power III	re easen	ienti, roa	adside l	517011	
Tributary is: (check one)	□ Natural	Artificial, man-m	nade 🗆 Manipulate	ed	
Stream Quality * : (check one)	- High	Moderate	KLow		
				the second se	

Waterbody ID: 12 SC High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) origin wichob12 wicho 013 Schooliz



Waterbody scho012 facing west upstream.



Waterbody scho012 facing east downstream.

Photo Sheet 1 of 2 6-280



Waterbody scho012 facing south across bank.

Open Waterbody Data Sheet

Survey Description					
Project Name:	Waterbody N	ame:	N	Waterbody ID:	Date:
ACP	4	inomed Ported		ocho005	12/15/15
State: County:	00 40	Company:	Crew	Member Initials:	Photos:
VH Ches	apeake	ESL	L	KIKI	SESW
Tract Number(s):		Nearest Milepost:	n í	Associated Wetland	ID(s):)
21-111		01.0	7	NH	
Survey Type: (check one)	enterline 🗆 🛛	e-Route	cess Road	□Other:	
Physical Attributes					
Waterbody Type: (check one)	Natural Pond	ke 🛛 Reservoir 🗆 Imp	ooundment 🗆	Oxbow 🛛 Other:	
Hydrologic Regime:	nently Flooded	Semipermanently Floor	ded 🗆 Seas	sonally Flooded	Temporarily Flooded
OHWM OHW Height: 3 #	M Indicator: all that apply)	Of Clear line on bank	□Shelving	□Wrested vegetation	□Scouring □Water staining
n.	□Bent, matted, or m vegetation	nissing □Wrack line	□Litter and debris	Abrupt plant community cha	☐Soil characteristic change ange
Depth of Water:	Bank heig	ht (average):		Bank slope (aver	age):
UNKt.		ft.		-	60 degrees
		· · · · · · · · · · · · · · · · · · ·			
Qualitative Attributes		territer de la companya de la company	a de la caractería		a de la companya de l
(check one)	Clear DT	Turbid □Sheen on surface	□Surface scum	e ⊡Algal ⊡ mats	Other:
Substrate: Bedrock (check all that apply)	Boulder C	obble 🛛 Gravel 🗆	Sand 🗆 S	ilt/ clay 🛛 Organic	Other: UNK
% of Substrate:%	%	%%	%	%%	%
Width of Riparian Zone: Veg	etative Layers:				A
ft.	ck all that apply)	□ Trees:	🗆 Sa	plings/Shrubs:	A Herbs
Avg	. DBH of Dominant	s:in.		in.	<u>NA_in</u> .
NAL (app Dominant Bank Vegetation (list):	rox.)				
mowed are	ss-es				
Aquatic Habitats (ex: submerged or en	merged aquatic vegetation,	overhanging banks/roots, leaf pa	cks, large submerg	ed wood, riffles, deep pools,	etc.):
Anustia Ormaniama Observed (
hone observed (erved				
T&E Species Observed (list):	1				
none obs	served				
Disturbances (ex: livestock access,	manure in waterbody, v	waste discharge pipes):		1 1	
pond inside	e fenc	e at po	wer	plant	
Waterbody is:					
(check one)	Natural Artific	ial, man-made 🛛 M	anipulated		4th
Waterbody Quality *: (check one)	High 🗆 Modera	te /B-Low		Å	i anti anti anti anti anti anti anti ant
				í ul	

Waterbody ID: ocho DO5 High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: could not GPS waterbody. Could not cross fence at powerplant at Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features) och6005 ob railroom



Waterbody ocho005 facing southeast.



Waterbody ocho005 facing southwest.

Photo Sheet 1 of 1 6-284

Open Waterbody Data Sheet

Survey Description					and the second second
Project Name: ACP	Waterbody N LAN	ame: Jamed Pond	M	Vaterbody ID: ocho 004	Date: 12 15 15
VA Che	sapeake	ESI ESI	L	RIRT.	N, NE
Tract Number(s): 27-177		Nearest Milepost: 81.6	Δ	Associated Wetland I	ID(s):
Survey Type: (check one)	Ĉenterline 🗆 🛛	e-Route □Access Ro	ad	□Other:	
Physical Attributes Waterbody Type: (check one) EStock Pond E] Natural Pond □ La	ke 🗆 Reservoir 🗆 Impoundm	ent 🗆	Oxbow D Other:	
OHWM OH Height:ft.	Manently Flooded WM Indicator: Ck all that apply) Bent, matted, or m vegetation	Semipermanently Flooded I Clear line DSh on bank hissing DWrack DLitt line debri	Seaso elving er and s	Onally Flooded	Temporarily Flooded
Depth of Water: 	Bank heig	ht (average): ft.		Bank slope (avera –	age): 4 <u>5</u> degrees
Water Appearance: (check one) No wate Substrate: Dedroce (check all that apply)	er Clear T k Boulder C	urbid ⊡Sheen □ on surface sc obble □ Gravel ⊡(Sand	Surface sum I Sil	e ⊡Algal ⊡0 mats It/ clay ⊡ Organic	Other:
% of Substrate:% Width of Riparian Zone: V ft. N/A	getative Layers: heck all that apply) vg. DBH of Dominant	%%70_%	□ Sap	olings/Shrubs:	% XTHerbs in.
Phragmites	austra	lis, mowed a	gra	sses	
Aquatic Habitats (ex submerged or NDNC 0650 Aquatic Organisms Observed	emerged aquatic vegetation, cvved (list):	overhanging banks/roots, leaf packs, large	submerge	d wood, riffles, deep pools, e	etc.):
T&E Species Observed (list): hone ob	served			-	
Pond on T	ss, manure in waterbody, v power pl	vaste discharge pipes): o-nt near	010	1 railroo	ad bed
Waterbody is: (check one) [Natural Artific	ial, man-made 🛛 🗆 Manipulat	ed		
Waterbody Quality * : (check one)	□ High □ Moderat	e Klow			

6-285

hoDDY DC High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man. Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man. Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features) ocho004 old railroad VVVV V wcho014 6-286

Waterbody ID:



Waterbody ocho004 facing north.



Waterbody ocho004 facing northeast.

Photo Sheet 1 of 1 6-287

Survey Descriptio	n	A Paragent of Paragent (1991)					10-4-1
Project Name:		Waterbody Na	me: South	Branch	Waterbody ID:	201	Date:
ACP		of Eliz	LABETH R	LIJER	schpl	101	12/11/15
State:	County/Parish:		Company:		Crew Member Initia	Is: Photos	" facing
VA	Chesape	ake	ESI.		MKSIKSN) wi	E, N
Tract Number(s):	1		Nearest Mile	epost:	Associated	Wetland ID(s):	
27-001-8212	,27-005R	R, 27-177		81.9	NA		
Survey Type: (check one)	⊠Centerlin	e 🗆 🗆 Re-F	Route	□Access Road	Other:		
Physical Attribute	<u>s</u>		and the second				
(check one)	Ephemer	al 🗆 Inter	mittent	di-Perennial			
Waterbody Type: (check one)	River 🗆 St	ream 🗆 Dito	ch ⊡Ca	anal 🗆 Other			
OHWM Width: 840 _{ft.}	OHWM Indica (check all that app	ator: ly)	Clear lin on bank	e 🗆 Shelvin	g □Wrested vegetation	□Scouri	ng ⊟Water staining
Height: <u>30</u> ft.	□Bent, vegetati	matted, or missin on	ig ⊡Wrack lii	ne 🗆 Litter a debris	nd	ant □Soil change	characteristic change
Width of Waterbody - 1 Bank to Top of Bank:	Fop of Width to Toe	of Waterbody - of Slope: SOU _{ft.} (app	Toe of Slope ₂ (3火)	Width of Waterb Water Edge:	oody - Water Edge to 응식O _{ft.}	Depth of Wat	er: 30 _{ft.}
Sinuosity: (check one) ⊡Straight	Water (Approx.	velocity: 0.5	ps	Bank height Right: Left:	6 * *above water ft. level 6 * ft.	Bank slope Rigi Le	ht: 45 degrees
Qualitative Attribu	ites		1				
Water Appearance: (check one)	No water	Clear thrut	oid ⊡Sh on	een ⊡Su surface sc	urface □Algal um mats	□Other:	
Substrate: [(check all that apply) % of Substrate:	Bedrock DB	oulder 🗆 Cobb	ole 🗆 Grave	el □ Sand _%%	□ Silt/ clay □ Organ %	nic □ Other: _%%	Lindetermined too deep to check.
Width of Riparian Zon <u>>(のの)ft</u> . N/Aロ	e: Vegetativ (check all that Avg. DBH (approx.)	e Layers: ht apply) f of Dominants:	□ Trees	:: ! _in	Saplings/Shrubs:in.	□ Herbs	in.
Dominant Bank Vegeta	ation (list):						
none pre	sent, b	ulk-hea	oded				
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegetatio	on, overhanging	banks/roots, leaf pag	cks, large submerged wo	od, riffles, deep po	ools):
Wouden	Structur	es (bulk	head)				
Aquatic Organisms Of	served (list):						
Kish							
T&E Species Observe	d (list):						
DODE							
Disturbances (ex: lives	ock access, manure	in waterbody, wast	e discharge pipe	es):			1 8 1 V
dredging	, harden	ed sh	orein	e	/		
Tributary is: (check one)	Natural		tificial, man-m	ade 🖻 Manin	oulated		

Linear Waterbody Data Sheet

(

Stream Quality *:

(check one)

🗆 High

Form Rev. 05/16/2014

Low

Moderate

	Waterbody ID: Schp001
High Quality: Natural channel, natural vegetation extends at least one roots; water color is clear to tea-colored; no barriers to fish moveme disturbance by livestock or man.	e or two active channel widths on each side; banks stable and protected by nt; many fish cover types available; diverse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegeta or riparian vegetation only moderately compromised; banks moderatel film; moderate odor; minor barriers to fish movement; fair aquatic habita	tion extends 1/3-1/2 of the active channel width on each side; filtering function y unstable; water color is cloudy, submerged objects covered with greenish it; minimum disturbance by livestock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and cl width on each side; lack of regeneration; filtering function severely comp pollutants (algal mats, surface scum, surface sheen); heavy odor; seve from livestock or man.	hannelization excessive; natural vegetation less than 1/3 of the active channel promised; banks unstable (eroding); water color is muddy and turbid; obvious are barriers to fish movement; little to no aquatic habitat; severe disturbance
Notes:	
	Show that we are and a set of the
Waterbody Sketch (Include north arrow, centerline, distance from ce	enterline, data point location, survey boundary, and IDs of associated features)
Willidarg Hwg	
	(4513)
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Dree F	and the second s
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in sta	
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	The second second second second second second second



Waterbody data point schp001 facing west upstream.



Waterbody data point schp001 facing east downstream.

Photo Sheet 1 of 2 6-290



Waterbody data point schp001 facing north across bank.

Linear Waterbody Data Sh	eet				
Survey Description	havenetereterete			Waterbody ID	Date:
Project Name:	waterbody Na	me:	Rin	R I AA	UNA 1014/15
TTCF	4NTto So	WITH BRANCH E	Hedasil	schpuc	12/1/15
State: County/Paris	h:	Company:		Crew Member Initials	: Photos: sacing
VA Chesa	peake	EST-1		MKS/KSCO	SE, W, NE
Tract Number(s):		Nearest Milepost		Associated W	/etland ID(s):
27-005_RR, 27-001-	Bala	-	NA	NA	
Survey Type: (check one)	rline BRe-F	Route	Access Road	□Other:	
Physical Attributes					
Stream Classification:	neral Dinter	mittent 🗆	Perennial		
Waterbody Type:					
(check one)	Stream Dite	ch 🗆 Canal	Other:		
OHWM OHWM In Check all that	dicator: apply)	Clear line on bank	□Shelving	WVrested vegetation	□Scouring DWater staining
Height:ft. UBe	nt, matted, or missin tation	ng ⊡Wrack line	□Litter an debris	d	nt Soil characteristic change nange
Width of Waterbody - Top of Wi	dth of Waterbody -	Toe of Slope Widt	th of Waterbo	ody - Water Edge to	Depth of Water: (Approx.)
Bank to Top of Bank: to	loe of Slope:	wau	er Euge:	6	() pprovide
<u>ft.</u>	ft.	NIA		<u>ft.</u>	N/A
Sinuosity: Wa	ter velocity:	Ban	k height		Bank slope
(check one) (Ap)	(.xoro		Right:	2	Right: 45 dograa
		ps	Left:	<u> </u>	Left: Left:
Meandering N//		2	H. Bis	<u> </u>	degrees
Qualitative Attributes					
Water Appearance:					
(check one)		on surfa		m mats	
Substrate: Bedrock	Boulder Cobt	ole 🗆 Gravel	Sand D	Silt/ clay Organi	c 🗆 Other:
(check all that apply) % of Substrate:	0/	0/. 0/.	10 %	90%	%
/* Of Outballate%%	70	/0/0	/0		
Width of Riparian Zone: Veget	ative Layers:	Пт	PL ST	Saplings/Shaips	Herbs
50 ft. Avg. I	OBH of Dominants:	in	L	in.	N/A_in.
N/A	1				
Phragmites australi	s, Aster	SP. (mow	ed]		
Aquatic Habitats (ex: submerged or em	erged aquatic vegetatic	on, overhanging banks	/roots, leaf pack	ks, large submerged wood	d, riffles, deep pools):
none					
Aquatic Organisms Observed (list):					
none observed					and and
T&E Species Observed (list):					
non-e observed		Aller Meridian			
Disturbances (ex: livestock access, man	nure in waterbody, wast	e discharge pipes):			
Discharge Pip	e				
Tributary is:	iral that	tificial man-mada	□ Manin	ilated	
Stream Quality *:		incial, man-made		inter	
(check one)	n □ M	oderate	LOW	And Marian Barr	

	Waterbody ID:
 High Quality: Natural channel, natural vegetation extends at le roots; water color is clear to tea-colored; no barriers to fish m disturbance by livestock or man. 	ast one or two active channel widths on each side; banks stable and protected by ovement; many fish cover types available; diverse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural or riparian vegetation only moderately compromised; banks mo film; moderate odor; minor barriers to fish movement; fair aquation	vegetation extends 1/3-1/2 of the active channel width on each side; filtering function derately unstable; water color is cloudy, submerged objects covered with greenish chabitat; minimum disturbance by livestock or man.
Low Quality: Channel is actively down cutting or widening; rip ray width on each side; lack of regeneration; filtering function severe pollutants (algal mats, surface scum, surface sheen); heavy odo from livestock or man.	o and channelization excessive; natural vegetation less than 1/3 of the active channel ly compromised; banks unstable (eroding); water color is muddy and turbid; obvious or; severe barriers to fish movement; little to no aquatic habitat; severe disturbance
Notes:	
Waterbody Sketch (Include north arrow, centerline, distance	from centerline, data point location, survey boundary, and IDs of associated features)
	N
	Abin
	V END
	Schpoot -
Schp003	Schpoor Ed
	ENU ENU
100	1
5	/dhp004
East	Contraction and the set of a second second
Bank	and the second second a second state of the second s
70	
Doury	
Dranch	
P. 120	
Liver	Andrew and the second to the second to



Waterbody data point schp004 facing southeast upstream.



Waterbody data point schp004 facing west downstream.

Photo Sheet 1 of 2 6-294



Waterbody data point schp004 facing northeast across bank.



Waterbody dchr008 facing northeast upstream.



Waterbody dchr008 facing southwest downstream.

Photo Sheet 1 of 2 6-296



Waterbody dchr008 facing southeast across bank.

Linear Waterbody Data Sheet

Survey Description				1.1.1.1.1.1.1.1				
Project Name:		Waterbody Nam	uNT t	o Great Dism	al Waterbo	dy ID:	p and Dat	e:
ALP		Ditch	Swamp	0	50	nrout	e L	Jan 2016
State: Co	ounty/Parish:		Company:	and the first	Crew Membe	er Initials:	Photos:	110
VA	Chesap	peake	ESI		CAS	COM	NW,	NE, SE
Tract Number(s):			Nearest Mile	post:	Asso	ciated Wetland	ID(s):	the second that
27-001 Survey Type:	-B2	11	Da	,T		WChbO	01	
(check one)	Centerline	□Re-R	oute	Access Road	□Oth	ner:		
Physical Attributes Stream Classification: (check one)		ıl ⊡interr	nittent	12 Perennial				
Waterbody Type:	7 X -F			~				
(check one)	ver 🗆 Str	eam XDitci	h 🗆 Ca	anal 🗆 Other:				
OHWM Width: <u>5</u> ft.	OHWM Indical (check all that apply	or:)	Clear lin on bank	ie 🗆 Shelving	g ⊡W vege	rested (etation	Scouring	staining
Height: 0.5 ft.	□Bent, n vegetatio	natted, or missing n	g ⊡Wrack lin	ne DLitter an debris	d 🗆 At	brupt plant munity change	□Soil char	acteristic change
Width of Waterbody - Top	of Width o	of Waterbody - T	foe of Slope	Width of Waterbo	ody - Water E	dge to Depth	of Water:	
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:	-	(Approx	(.) •	C
ft.	-	5_ft.			<u>5_ft.</u>	NUAT	0	<u>ft</u> .
Sinuacity	Water	volocity		N/AL		Bank	slone	
(check one)	(Approx.)	velocity:		Right:		Dank	Right:	110
Straight		fr	S	1	<u>), 5 ft.</u>		-	75 degrees
	N/A			Left: T),5 ft.		Left:	60 degrees
Qualitative Attribute	5		· · · 2 ··					
Water Appearance:							1.25	
(check one)	o water	Çlear 🗆 Turb	id DSh on	neen ⊡Su nisurface scu	rface ⊡A um n	Ngal ⊡Oth nats	er:	
Substrate: B	edrock 🗆 Bo	oulder 🗆 Cobb	le 🗆 Grav	el Sand I	Silt/ clay	Organic 🗆	Other:	
(check all that apply) % of Substrate:%%%% <u>20</u> % <u>20</u> %%								
Width of Riparian Zone: Vegetative Layers:								
8 ft.	(check all that	tapply)	□ Trees	s: [□ Saplings/Sh	hrubs:	Herbs	
	(approx.)	of Dominants.		_in	in.		<u>//</u> .in.	
Dominant Bank Vegetation	n (list): Custr	alis. Ty	ipha lo	atiblia				
Aquatic Habitats (ex: subn	nerged or emerge	d aquatic vegetatio	n. overhanging	banks/roots, leaf pag	cks. large subm	eraed wood, riffle	s, deep pools):	
None				Sin				
Aquatic Organisms Obse	rved (list):							
None	1. 10 -			and a strength				
T&E Species Observed (/	list):					27.00		and a series of the second
None								the second
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): RDad								
Tributary is: (check one)	Natural	ZA	rtificial, man-r	nade 🗆 Manir	pulated			han an a
Stream Quality *:	High	The state	oderate o					
	- mgn	A IVI	6	-298			the second second	

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by
roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no
disturbance by livestock or man.

Waterbody ID:

Schr007

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:		
	and the second	
	•	
Waterbody Sketch (//	nclude north arrow, centerline, distance from centerline, data point loca	ation, survey boundary, and IDs of associated features
()		Sand
N		rexia.
		· · · · · · · · · · · · · · · · · · ·
		10001
		NCVI
		•
	shidy corridor	
	SILLEY	
		Π
		to
		14 Pril
Transfer the state	- Centerline -	Brann 19
		EIP
	Ditch schr007	- KM J
		F G
	Road	Wett/R
	6-299	/



Waterbody schr007 facing northwest upstream.



Waterbody schr007 facing northeast downstream.

Photo Sheet 1 of 2 6-300
Environmental Field Surveys Waterbody Photo Page



Waterbody schr007 facing southeast across bank.



Ditch data point DCHB001 facing east

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sa	mpling Date: 12/8/2014		
Applicant/Owner: Dominion		State: VA Sa	mpling Point: wsua006f_w		
Investigator(s): GB, RL	Section, Township, Range	No PLSS in this area			
Landform (hillslope, terrace, etc.); floodplain	Local relief (concave, conv	ex. none); microtopograp	hy Slope (%): 0		
Subregion (LRB or MLRA): T	6.63087967	76.89024724	UGS 1984		
Soil Map Unit Name. Nansemond loamy fine sand, 6 to 15 percer	nt slopes	NWI classification	n· PFO1E, R2UBH		
Are climatic / hydrologic conditions on the site typical for this time	of vear? Yes 🖌 No	(If no. explain in Rema	arks.)		
Are Vegetation . Soil . or Hydrology signific	antly disturbed? Are "Nor	mal Circumstances" prese	ent? Yes 🖌 No		
Are Vegetation , Soil , or Hydrology natural	ly problematic? (If neede	d, explain any answers in	Remarks.)		
SUMMARY OF FINDINGS – Attach site map show	ving sampling point loca	tions, transects, in	nportant features, etc.		
Hydrophytic Vegetation Present? Yes 🖌 No	Is the Sampled Are	ea			
Hydric Soil Present? Yes 🖌 No	within a Wetland?	Yes 🖌	No		
Wetland Hydrology Present? Yes <u>Ves</u> No					
above floodplain. There is no natural levee present on the eastern	n side of river, so OHWM is the	western boundary of wetta	and.		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators	(minimum of two required)		
Primary Indicators (minimum of one is required; check all that ap	oply)	Surface Soil Crac	cks (B6)		
⊻ Surface Water (A1) Aquatic Fauna	a (B13)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits	(B15) (LRR U)	Drainage Pattern	Drainage Patterns (B10)		
Saturation (A3) Hydrogen Sul	ride Odor (C1) ospheres along Living Poots (C1	Moss Trim Lines	(B16) er Table (C2)		
✓ Valer Marks (B1) Oxidized (Miz	educed Iron (C4)	✓ Cravfish Burrows	(C8)		
Drift Deposits (B3) Recent Iron R	eduction in Tilled Soils (C6)	Saturation Visible	e on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Su	rface (C7)	 Geomorphic Pos 	ition (D2)		
Iron Deposits (B5) Other (Explain	n in Remarks)	Shallow Aquitard	(D3)		
Inundation Visible on Aerial Imagery (B7)		 FAC-Neutral Tes 	t (D5)		
Water-Stained Leaves (B9)		Sphagnum moss	i (D8) (LRR T, U)		
Field Observations:	-h				
Water Table Present? Yes Vo. Depth (in	ches): 0				
Saturation Present? Yes Y No Depth (in	ches): 0 Wetlar	d Hydrology Present?	Yes 🖌 No		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if	available:			
Pemarke:					
Nemans.					
1					

Sampling Point: <u>wsua006f_w</u>

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Nyssa aquatica		Yes	OBL	That Are OBL, FACW, or FAC: (A)
2. Taxodium distichum		Yes	OBL	Total Number of Dominant
3. Fraxinus pennsylvanica	5	No	FACW	Species Across All Strata: 7 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				Drevelance index worksheet.
7				Tatel % Cover of
8				1000000000000000000000000000000000000
	80	= Total Cov	rer	$\begin{array}{c} \text{OBL species} \\ \hline 16 \\ \hline 32 \\ \hline \end{array}$
50% of total cover:	40 20% of	total cover	16	FACW species 27
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 =
1. Fraxinus pennsylvanica	5	Yes	FACW	FACU species $x = 0$
2. Nyssa aquatica	5	Yes	OBL	UPL species $x \ 5 = \ 105$ 139
3. Itea virginica	4	Yes	FACW	Column Totals: (A) (B)
4. Carpinus caroliniana	3	No	FAC	Prevalence Index = $B/A = 1.32$
5. Acer rubrum	3	No	FAC	Hydrophytic Vegetation Indicators:
6				✓ 1 - Rapid Test for Hydrophytic Vegetation
7.				\checkmark 2 Dominance Test is >50%
8.				\sim 2 - Dominance rest is >50%
	20	= Total Cov	er	\sim 3 - Prevalence index is \geq 5.0
50% of total cover	10 20% of	total cover	. 4	
Herb Stratum (Plot size: 5)	2070 01		·	1
				Indicators of hydric soil and wetland hydrology must
1	· ·			Definitions of Four Verstation Strate:
2				Demittons of Four Vegetation Strata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		·		more in diameter at breast height (DBH), regardless of height
5	,,			noight.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 ln. DBH and greater than 3.28 ft (1 m) tail.
8 9		·		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine – All woody vines greater than 3.28 ft in height
12				noight.
12.	0	= Total Cov	er	
50% of total cover	0 20% of	total cover	. 0	
Weady Vine Stratum (Plat size: 30	20% 01		·	
Smilax rotundifolia	3	Yes	FAC	
Decumaria barbara	2	Yes	FACW	
3	,,			
4				
5		<u> </u>		Hydrophytic
	5	= Total Cov	rer	Vegetation Present? Ves V
50% of total cover:	2.5 20% of	total cover	· · ·	
Remarks: (If observed, list morphological adaptations b	pelow).			

SOIL

Profile Desc	cription: (Describe to	o the depth	needed to docu	ment the in	dicator of	or confirm	the absence	of indicato	ors.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-18	10YR 2/2	100					SIL			
¹ Type: C=C	oncentration, D=Deple	etion, RM=F	Reduced Matrix, M	S=Masked S	Sand Gra	ains.	² Location:	PL=Pore L	ining, M=Matr	ix.
Hydric Soil	Indicators: (Applica	ble to all L	RRs, unless othe	rwise noted	d.)		Indicators	for Proble	matic Hydric	Soils ³ :
Histosol	(A1)		Polyvalue B	elow Surface	e (S8) (L	RR S, T, U)	1 cm M	Muck (A9) (L	_RR O)	
Histic Ep	pipedon (A2)		Thin Dark S	urface (S9)	(LRR S,	T, U)	2 cm M	Muck (A10)	(LRR S)	
Black Hi	istic (A3)		Loamy Much	y Mineral (F	- 1) (LRR	0)	Reduc	ed Vertic (F	18) (outside	MLRA 150A,B)
✓ Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix (F	2)		Piedm	ont Floodpla	ain Soils (F19) (LRR P, S, T)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)	,		Anoma	alous Bright	Loamy Soils	(F20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F6	5)		(ML	RA 153B)	5	. ,
5 cm Mi	ucky Mineral (A7) (LR	R P. T. U)	Depleted Da	rk Surface (, F7)		Red P	arent Mater	ial (TF2)	
 Muck Pr	esence (A8) (LRR U)		Redox Depr	essions (F8))		Verv S	Shallow Darl	k Surface (TF	12)
1 cm Mu	uck (A9) (LRR P. T)		Marl (F10) (_RR U) `	, ,		 Other	(Explain in I	Remarks)	,
Deplete	d Below Dark Surface	(A11)	Depleted Oc	hric (F11) (I	MLRA 15	51)		V F	,	
Thick Da	ark Surface (A12)		Iron-Mangar	ese Masses	s (F12) (I	, _RR O. P. T) ³ India	cators of hvo	drophytic vege	etation and
Coast P	rairie Redox (A16) (M	LRA 150A)	Umbric Surfa	ace (F13) (L	RR P. T.	U)	wei	tland hydrol	oav must be n	present
Sandy N	/ucky Mineral (S1) (LI	R O. S)	Delta Ochric	(F17) (MLF	RA 151)	-,	unl	ess disturbe	ed or problema	atic
Sandy G	Gleved Matrix (S4)		Reduced Ve	rtic (F18) (N	II RA 15	0A. 150B)				
Sandy F	Redox (S5)		Piedmont Fl	nodplain So	ils (F19)	(MI RA 149	A)			
Stripped	Matrix (S6)			Bright Loam	v Soils (F	20) (MI RA	149A 153C	(153D)		
Dark Su	rface (S7) (I RR P S	ти			y 0010 (1		1404, 1000	, 100D)		
<u>Pestrictive</u>	l aver (if observed):	1, 0)								
	ne									
Type:									~	
Depth (in	ches):						Hydric Soil	Present?	Yes	No
Remarks:										



Photo 1 Wetland data point wsua006f_w facing south



Photo 2 Wetland data point wsua006f_w facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Suffolk	Sampling Date: <u>12/8/2014</u>
Applicant/Owner: Dominion		State: VA	Sampling Point: <u>wsua006_u</u>
Investigator(s):	Section, Towr	nship, Range: <u>No PLSS in this a</u>	irea
Landform (hillslope, terrace, etc.): slope	Local relief (co	oncave, convex, none): <u>none</u>	Slope (%): 25
Subregion (LRR or MLRA): T	Lat: <u>36.63093391</u>	Long: <u>-76.89015963</u>	Datum: WGS 1984
Soil Map Unit Name: Nansemond loamy fine sa	and, 6 to 15 percent slopes	NWI class	ification: None
Are climatic / hydrologic conditions on the site t	ypical for this time of year? Yes	No (If no, explain ir	Remarks.)
Are Vegetation, Soil, or Hydrold	gy significantly disturbed?	Are "Normal Circumstances	s" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrold	gy naturally problematic?	(If needed, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Attach	site map showing sampling	point locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the	Sampled Area	
Hydric Soil Present? Yes	No within	a Wetland? Yes	No 🖌
Wetland Hydrology Present? Yes	No		

Remarks:

Upland data point taken above toe of slope for a semi-permanently flooded PFO wetland located on the floodplain of the Blackwater River.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)		
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)		
Water Marks (B1) Oxidized Rhizospheres along Living F	Roots (C3) Dry-Season Water Table (C2)		
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)		
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils	(C6) Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)		
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)		
Field Observations:			
Surface Water Present? Yes No 🖌 Depth (inches):			
Water Table Present? Yes No 🖌 Depth (inches):			
Saturation Present? Yes <u>No</u> Depth (inches):	etland Hydrology Present? Yes No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:		
Remarks:			
no hydrology indicators present			

Sampling Point: <u>wsua006_u</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Number of Dominant Species
1. Carya cordiformis	20	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2. Fagus grandifolia	20	Yes	FACU	Tatal Number of Deminant
3. Quercus alba	20	Yes	FACU	Species Across All Strata: 10 (B)
4. Ilex opaca	10	No	FAC	
5			·	Percent of Dominant Species
6				That Are OBL, FACW, of FAC: (A/B)
7			·	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
ð	70			OBL species $0 x 1 = 0$
35		= Total Cov	er 14	FACW species $\frac{3}{x^2} = \frac{6}{6}$
50% of total cover:	20% of	total cover:		EAC species $59 \times 3 = 177$
Sapling/Shrub Stratum (Plot size: 15)	40	Ma a	FAOL	$\frac{67}{5} \times 4 = \frac{268}{2}$
1. Fagus granditolia	10	Yes	FACU	$\frac{1}{1} \frac{1}{1} \frac{1}$
2. Symplocos tinctoria	10	Yes	FAC	$\begin{array}{c} \text{OFL species} \\ \text{Oclume Tatala} \\ 129 \\ \text{(A)} \\ 451 \\ \text{(D)} \end{array}$
3. Ilex opaca	4	No	FAC	Column Totals: (A) (B)
4. Carpinus caroliniana	3	No	FAC	Prevalence Index = $B/A = 3.49$
5. Vaccinium elliottii	3	No	FACW	Hydrophytic Vogetation Indicators:
6	;			A Denid Test for Undrenk tic Verstation
7				1 - Rapid Test for Hydrophytic Vegetation
0			·	2 - Dominance Test is >50%
0	30	- Tatal Car		3 - Prevalence Index is ≤3.0 '
			er 6	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover		
Herb Stratum (Plot size: 5)	0	.,	540	¹ Indicators of hydric soil and wetland hydrology must
1. Carex blanda	2	Yes	FAC	be present, unless disturbed or problematic.
2. Panicum capillare	2	Yes	FAC	Definitions of Four Vegetation Strata:
3. Polystichum acrostichoides	2	Yes	FACU	Tree – Woody plants, excluding vines 3 in (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sanling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8			. <u> </u>	
0				of size and woody plants less than 3 28 ft tall
3			·	
10			·	Woody vine – All woody vines greater than 3.28 ft in
11			<u> </u>	height.
12			·	
2	0	= Total Cov	er 10	
50% of total cover:3	20% of	total cover	1.2	
Woody Vine Stratum (Plot size: 30)				
1. Lonicera japonica	15	Yes	FACU	
2. Smilax rotundifolia	8	Yes	FAC	
3				
4.				
5				Undrank tio
	23	= Total Cov	er	Vegetation
50% of total cover: 11.5	20% of	total cover	4.6	Present? Yes No
Demarka: //f abaan/ad_liat membalaginal adaptations bala	207001		·	
Temarks. (II observed, list morphological adaptations belo	vv).			

Profile Des	cription: (Describe	to the depth	needed to docur	nent the ir	dicator	or confirm	the absence	of indicator	s.)		
Depth	Matrix		Redo	x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0-7	10YR 2/2	100					SL				
7-15	10YR 4/3	100					LS				
15-24	10YR 5/3	100					LS				
	-										
				·							
				·							
	oncontration D-Dor	lotion PM-P	educed Matrix M		Sand Gr		² Location:		ning M-Matr		
Hydric Soil	Indicators: (Applic	able to all Li	RRs, unless other	wise note	d.)	aii 15.	Indicators	for Problem	natic Hydric	Soils ³ :	
Histoso	(A1)		Polyvalue Be	low Surfac	, e (S8) (L	RR S, T, U)	1 cm N	/luck (A9) (Ll	RR O)		
Histic E	pipedon (A2)		Thin Dark Su	rface (S9)	(LRR S.	T. U)	2 cm N	/uck (A10) (I	_RR S)		
Black H	istic (A3)		Loamy Muck	y Mineral ((, F1) (LRR	0)	Reduc	ed Vertic (F1	8) (outside	MLRA 150A,B)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		Piedm	ont Floodplai	n Soils (F19) (LRR P, S, T)	
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	,		Anomalous Bright Loamy Soils (F20)				
Organic	Bodies (A6) (LRR F	P. T. U)	Redox Dark	Surface (Fe	5)		(MLI	RA 153B)	,	. ,	
5 cm M	ucky Mineral (A7) (L	RR P, T, U)	Depleted Da	k Surface	, (F7)		Red P	Red Parent Material (TF2)			
Muck P	resence (A8) (LRR L	J)	Redox Depre	ssions (F8)		Very S	Shallow Dark	Surface (TF	12)	
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	RR U)			Other	(Explain in R	emarks)	,	
Deplete	d Below Dark Surfac	e (A11)	Depleted Ocl	nric (F11) (MLRA 15	51)					
Thick D	ark Surface (A12)	、	Iron-Mangan	ese Masse	s (F12) (_RR 0, P, T	r) ³ Indio	ators of hydi	ophytic vege	tation and	
Coast F	rairie Redox (A16)	MLRA 150A)	Umbric Surfa	ce (F13) (l	-RR P. T.	U)	wetland hydrology must be present,				
Sandy N	Aucky Mineral (S1)	LRR O. S)	Delta Ochric	(F17) (MLI	RA 151)	- /	unless disturbed or problematic.				
Sandy (Gleved Matrix (S4)		Reduced Ver	tic (F18) (N	ILRA 15	0A. 150B)					
Sandy F	Redox (S5)		Piedmont Flo	odplain Sc	ils (F19)	(MLRA 149	(A)				
Stripped	Matrix (S6)		Anomalous F	Bright Loam	ny Soils (F	=20) (MLRA	149A. 153C	. 153D)			
Dark Su	Inface (S7) (LRR P, S	S, T, U)			.,		,	,,			
Restrictive	Layer (if observed)	:									
Type: no	ne										
Depth (in	ches):						Hydric Soil	Present?	Yes	No <u>′</u>	
Remarks:											



Photo 1 Upland data point wsua006_u facing east



Photo 2 Upland data point wsua006_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk Sampling Date: 12/8/2014
Applicant/Owner: Dominion	State: VA Sampling Point: wsua007s_w
Investigator(s): GB, RL	Section, Township, Range: No PLSS in this area
Landform (hillslope, terrace, etc.): <u>flat</u> - ditch/berm	Local relief (concave, convex, none): <u>concave</u> Slope (%): <u>1</u>
Subregion (LRR or MLRA): T Lat: 36.633	05944 Long: <u>-76.88251429</u> Datum: <u>WGS 1984</u>
Soil Map Unit Name: Tomotley loam	NWI classification: PFO1C
Are climatic / hydrologic conditions on the site typical for this time of year Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally provide the site map showing SUMMARY OF FINDINGS – Attach site map showing statemap stat	ear? Yes ✓ No (If no, explain in Remarks.) disturbed? Are "Normal Circumstances" present? Yes No oblematic? (If needed, explain any answers in Remarks.) g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ✔ No Hydric Soil Present? Yes ✔ No Wetland Hydrology Present? Yes ✔ No Remarks: Wetland data point for a saturated PSS wetland located in a ditch/ber parallel ditches define the east and west (long axis) extent of feature. years old.	Is the Sampled Area within a Wetland? Yes <u>Ves</u> No m planted pine strip paralleling dirt two track (Access Road 71a). Two main, Pines in this strip are 5-7 years old, while those in the adjacent upland are 15

Wetland Hydrology Indicato	rs:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; check all	that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic	: Fauna (B13)		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl De	eposits (B15) (LRR U)		Drainage Patterns (B10)
Saturation (A3)	Hydrog	en Sulfide Odor (C1)		Moss Trim Lines (B16)
Water Marks (B1)	Oxidize	d Rhizospheres along Living F	Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presen	ce of Reduced Iron (C4)		✓ Crayfish Burrows (C8)
Drift Deposits (B3)	Recent	Iron Reduction in Tilled Soils	(C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Mu	uck Surface (C7)		Geomorphic Position (D2)
Iron Deposits (B5)	Other (I	Explain in Remarks)		Shallow Aquitard (D3)
Inundation Visible on Aer	al Imagery (B7)			✓ FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)			Sphagnum moss (D8) (LRR T, U)
Field Observations:	<u>·</u>			
Surface Water Present?	Yes No 🖌 De	pth (inches):		
Water Table Present?	Yes No 🖌 De	pth (inches):		
Saturation Present?	Yes No 🖌 De	pth (inches):	Wetland I	Hydrology Present? Yes 🖌 No
(includes capillary fringe)				
Describe Recorded Data (stre	am gauge, monitoring well,	aerial photos, previous inspec	ctions), if ava	ailable:
Remarks:				

Sampling Point: wsua007s_w

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Dominant Species
1					That Are OBL FACW or FAC ⁵ (A)
2					
2					Total Number of Dominant
3				<u> </u>	Species Across All Strata: (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 100 (A/B)
6.					
7					Prevalence Index worksheet:
· ·				·	Total % Cover of: Multiply by:
8	<u> </u>				OBL species $10 \times 1 = 10$
	0	0	= Total Cov	er	$\frac{55}{55} \times 2 = \frac{110}{10}$
	50% of total cover:0	20% of	total cover:	0	FACW species $x = 435$
Sapling/Shrub Stratum (Plot size	<u>:</u> 15)				FAC species $x_3 = 0$
1 Pinus taeda		50	Yes	FAC	FACU species $x 4 = $
o Quercus niara		10	No	FAC	UPL species $0 \times 5 = 0$
Z. Liquidambar aturaciflua		10			Column Totals: 210 (A) 555 (B)
					(0)
4. Morella cerifera		8	NO	FAC	Prevalence Index = $B/A = 2.64$
5. Baccharis halimifolia		7	No	FAC	Hydrophytic Vegetation Indicators:
6					
					1 - Rapid Test for Hydrophytic Vegetation
/	<u> </u>				2 - Dominance Test is >50%
8					\checkmark 3 - Prevalence Index is ≤3.0 ¹
		85	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
	50% of total cover: 42.5	20% of	total cover:	17	
Herb Stratum (Plot size:	5				1
Dichanthelium scoparium)	30	Ves	FACW	Indicators of hydric soil and wetland hydrology must
					be present, unless disturbed of problematic.
2. Chasmantnium sessimorum			res	FAC	Definitions of Four Vegetation Strata:
3. Rhynchospora filifolia		15	No	FACW	Tree – Woody plants, excluding vines, 3 in (7.6 cm) or
4 _. Juncus effusus		10	No	OBL	more in diameter at breast height (DBH) regardless of
5 Andropogon virginicus		10	No	FAC	height.
 Arundinaria gigantea 		10	No	FACW	
0. <u></u>					Sapling/Shrub – Woody plants, excluding vines, less
7					than 3 m. DBH and greater than 3.28 ft (1 m) tail.
8					Herb – All herbaceous (non-woody) plants, regardless
9					of size, and woody plants less than 3.28 ft tall.
10					
11					Woody vine – All woody vines greater than 3.28 ft in
11					neight.
12				<u> </u>	
		95	= Total Cov	er	
.	50% of total cover: 47.5	20% of	total cover:	19	
Woody Vine Stratum (Plot size:	30)				
1 Gelsemium sempervirens	,	15	Yes	FAC	
o Rubus argutus		10	Yes	FAC	
2. Rubus arguius					
3. Smilax rotundifolia		5	100	FAU	
4					
5.					Hydrophytic
		30	= Total Cov	er	Vegetation
	50% of total anyon 15	200% of		6	Present? Yes No No
		20% 01	total cover.		
Remarks: (If observed, list morpl	nological adaptations below	N).			

SOIL

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the i	indicator	or confirm	the absence of	of indicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 3/2	100					SL		
4-9	10YR 4/2	95	10YR 4/6	5	С	М	SL		
9-20	10YR 5/2	88	10YR 4/6	12	С	PL/M	SL		
					·				
		<u> </u>		·	·		·		
. <u> </u>									
¹ Type: C=Co	oncentration, D=Depl	etion, RM [,]	=Reduced Matrix, MS	S=Maskec	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applica	ble to all	LRRs, unless other	wise not	ed.)		Indicators f	or Problematic Hydric Soils ³ :	
Histosol	(A1)		Polyvalue Be	low Surfa	ice (S8) (L	.RR S, T, U) 1 cm M	uck (A9) (LRR O)	
Histic Ep	bipedon (A2)		Thin Dark Su	rface (S9) (LRR S,	T, U)	2 cm M	uck (A10) (LRR S)	
Black Hi	stic (A3)		Loamy Mucky	y Mineral	(F1) (LRR	0)	Reduce	d Vertic (F18) (outside MLRA 150A,B)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratified	d Layers (A5)		 Depleted Mat 	trix (F3)			Anomal	ous Bright Loamy Soils (F20)	
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark S	Surface (F	-6)		(MLR	A 153B)	
5 cm Mu	icky Mineral (A7) (LR	R P, T, U)	Depleted Dar	k Surface	e (F7)		Red Pa	rent Material (TF2)	
Muck Pr	esence (A8) (LRR U))	Redox Depre	ssions (F	8)		Very Sh	allow Dark Surface (TF12)	
1 cm Mu	ıck (A9) (LRR P, T)		Marl (F10) (L	RR U)			Other (E	Explain in Remarks)	
Depleted	d Below Dark Surface	: (A11)	Depleted Och	ric (F11)	(MLRA 1	51)			
Thick Da	ark Surface (A12)		Iron-Mangane	ese Mass	es (F12) (LRR O, P,	T) ³ Indica	ators of hydrophytic vegetation and	
Coast Pi	rairie Redox (A16) (N	ILRA 150/	A) Umbric Surfa	ce (F13)	(LRR P, T	, U)	wetla	and hydrology must be present,	
Sandy M	lucky Mineral (S1) (L	RR O, S)	Delta Ochric	(F17) (ML	RA 151)		unle	ss disturbed or problematic.	
Sandy G	Bleyed Matrix (S4)		Reduced Ver	tic (F18) ((MLRA 15	0A, 150B)			
Sandy R	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 149	9A)		
Stripped	Matrix (S6)		Anomalous B	right Loar	my Soils (F20) (MLR	A 149A, 153C,	153D)	
Dark Su	rface (S7) (LRR P, S	, T, U)							
Restrictive I	Layer (if observed):								
Type: noi	ne								
Depth (inc	ches):						Hydric Soil I	Present? Yes 🖌 No	
Remarks:							•		



Photo 1 Wetland data point wsua007s_w facing north



Photo 2 Wetland data point wsua007s_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: S	uffolk	Sampling Date: 12/8/2014
Applicant/Owner: Dominion		State: VA	_ Sampling Point: <u>wsua007_u</u>
Investigator(s):	Section, Town	ship, Range: <u>No PLSS in this a</u>	rea
Landform (hillslope, terrace, etc.): flat	Local relief (co	ncave, convex, none): <u>none</u>	Slope (%): 2
Subregion (LRR or MLRA): T L	at: <u>36.63304892</u>	Long: <u>-76.88238302</u>	Datum: WGS 1984
Soil Map Unit Name: Tomotley loam		NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrologysi	gnificantly disturbed?	Are "Normal Circumstances"	" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling	point locations, transect	ts, important features, etc.

Hydrophytic Vegetation Present?	Yes 🖌	No	Is the Sampled Area		
Hydric Soil Present?	Yes	No 🖌	within a Wotland?	Voc	
Wetland Hydrology Present?	Yes	No 🖌		165	NO
Remarks:					

Upland data point taken in a pine plantation for a saturated PSS wetland. Pines in upland are 15-years-old, while those in the adjacent wetland strip are about 5-years-old.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	Contact Contract (DS) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
 Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) 	 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No <u></u> Depth (inches):	
Water Table Present? Yes No <u>v</u> Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _
Remarks: insufficient hydrology indicators present	tions), if available:

Sampling Point: wsua007_u

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Dominant Species
1. Pinus taeda		75	Yes	FAC	That Are OBL, FACW, or FAC: 8 (A)
2. Liquidambar styraciflua		5	No	FAC	Total Number of Dominant
3.					Species Across All Strata: 9 (B)
4.					(=)
5					Percent of Dominant Species
6					That Are OBL, FACW, of FAC: (A/B)
ö					Prevalence Index worksheet:
/					Total % Cover of: Multiply by:
8		80			OBL species 0 $x = 0$
	40		= Total Cov	er 16	FACW species $7 \times 2 = 14$
	50% of total cover:	20% of	total cover:		EAC species 153 x 3 = 459
Sapling/Shrub Stratum (Plot siz	ze: 15)		.,		$\frac{10}{10} \times 4 = \frac{40}{10}$
1. Liriodendron tulipifera		10	Yes	FACU	$\begin{array}{c} \text{PACO species} \\ \text{PACO species} \\ 0 \\ 0 \\ \text{PACO species} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
2. Acer rubrum		10	Yes	FAC	UPL species $x = 5 = 513$
3. Pinus taeda		10	Yes	FAC	Column Totals: (A) (B)
4. Liquidambar styraciflua		10	Yes	FAC	Provalence Index = P/A = 3.01
5. Quercus nigra		4	No	FAC	
6 Morella cerifera		4	No	FAC	Hydrophytic vegetation indicators:
- Ilex opaca		3	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
Vaccinium corvmbosum		2	No	FACW	2 - Dominance Test is >50%
8		53			3 - Prevalence Index is ≤3.0 ¹
	26.5		= Total Cov	er 10.6	Problematic Hydrophytic Vegetation ¹ (Explain)
	50% of total cover: 20.5	20% of	total cover:	10.0	
Herb Stratum (Plot size:	5)				¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea		5	Yes	FACW	be present, unless disturbed or problematic.
2. Chasmanthium sessiliflorum		2	Yes	FAC	Definitions of Four Vegetation Strata:
3					Tree Weady plants, avaluding vince, 2 in (7.6 cm) or
4.					more in diameter at breast height (DBH), regardless of
5.					height.
6					Capling/Chrub Weady planta avaluding visco logo
7					than 3 in. DBH and greater than 3.28 ft (1 m) tall.
· ·					
8:		·			Herb – All herbaceous (non-woody) plants, regardless
9					or size, and woody plants less than 3.26 it tall.
10			. <u> </u>		Woody vine - All woody vines greater than 3.28 ft in
11					height.
12					
		7	= Total Cov	er	
	50% of total cover: 3.5	20% of	total cover:	1.4	
Woody Vine Stratum (Plot size:	30)				
1. Gelsemium sempervirens		20	Yes	FAC	
2. Smilax rotundifolia		10	Yes	FAC	
3					
0					
4				<u> </u>	
J		30			Hydrophytic
	15		= Total Cov	er 6	Present? Yes No
	50% of total cover: 15	20% of	total cover:		
Remarks: (If observed, list mor	phological adaptations below	w).			

Profile Desc	ription: (Describe t	o the depth n	eeded to docum	ent the i	ndicator o	or confirm t	he absence	of indicato	rs.)	
Depth	Matrix		Redox	Features	6					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-6	10YR 2/2	100					SL			
6-10	10YR 3/2	100					SL			
10-20	10YR 5/3	100					SL			
				·						
		etion RM=Re	duced Matrix MS	-Maskod	Sand Gra		² Location:	PI = Pore Li	ning M=Matrix	
Hydric Soil I	ndicators: (Applica	able to all LRF	Rs, unless other	wise note	ed.)		Indicators	for Probler	natic Hydric S	Soils ³ :
Histosol	(A1)		Polvvalue Bel	ow Surfa	ce (S8) (L	RR S. T. U)	1 cm I	Muck (A9) (L	RR O)	
Histic Ep	vipedon (A2)	-	Thin Dark Su	face (S9)	(LRR S.	Γ. U)	2 cm l	Muck (A10) (LRR S)	
Black His	stic (A3)	-	Loamv Mucky	Mineral ((F1) (LRR	0)	Reduc	ed Vertic (F	18) (outside M	ILRA 150A.B)
Hydroge	n Sulfide (A4)	-	Loamy Gleve	d Matrix ((* *) (=*** F2)	-,	Piedm	ont Floodpla	in Soils (F19)	(LRR P. S. T)
<u>Stratified</u>	Lavers (A5)	-	Depleted Mat	rix (F3))		Anom	alous Bright	Loamy Soils (F	=20)
Organic	Bodies (A6) (I RR P	T II) -	Bedox Dark S	Surface (F	6)		/ uioiii /MI	RA 153R)		20)
<u> </u>	cky Mineral (A7) (I R	п, с, <u> </u>	Neoleted Dar	k Surface	(F7)		Red P	arent Materi	al (TF2)	
0 cm Muck Bro		<u> </u>	Depicted Dan	ccione (E	2)		Norv 9	Shallow Dark	Surface (TE1)	2)
					5)					<u>-</u>)
1 cm iviu	CK (A9) (LRR P, I)	-	Mari (F10) (Li	KK U)		4)	Other	(Explain in F	(emarks)	
Depieted	Below Dark Surface	(ATT) _	Depleted Och		(IVILKA 13		31			- 41
	irk Surface (A12)	-			es (F12) (L	-RR 0, P, I)	indi	cators of hyd	rophytic vegeta	ation and
Coast Pr	airie Redox (A16) (N	ILRA 150A)	Umbric Surfac	ce (F13) (0)	we	tiand hydroid	bgy must be pre	esent,
Sandy M	lucky Mineral (S1) (L	RR O, S) _	Delta Ochric (F17) (ML	.RA 151)		unl	ess disturbe	d or problemat	iC.
Sandy G	leyed Matrix (S4)	-	Reduced Vert	tic (F18) (MLRA 15	DA, 150B)				
Sandy R	edox (S5)	-	Piedmont Flo	odplain S	oils (F19)	(MLRA 149/	4)			
Stripped	Matrix (S6)	-	Anomalous B	right Loar	ny Soils (F	20) (MLRA	149A, 153C	;, 153D)		
Dark Sur	face (S7) (LRR P, S	, T, U)								
Restrictive L	ayer (if observed):									
Type: 10	le		_							
Depth (inc	ches):		_				Hydric Soi	Present?	Yes	No 🖌
Remarks:										



Photo 1 Upland data point wsua007_u facing east



Photo 2 Upland data point wsua007_u facing south

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: Cit	ty of Suffolk	Sampling Date: 2/6/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wsuc010s_w
Investigator(s): Team C	Section, Towns	hip, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): Depression	Local relief (concav	ve, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): T Lat: 36	3.63347814	Long:76.88301154	Datum: WGS 1984
Soil Map Unit Name: Tetotum fine sandy loam, 0 to 2 per	cent slopes	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for the	nis time of year? Yes	_ No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	rs in Remarks.)
		• • • • • • •	• • • • • •

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes 🥢 No
Remarks:				
Depression wetland near access road				

	ors:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; che	eck all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_ True Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)
 High Water Table (A2) 		_ Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
Saturation (A3)		_ Oxidized Rhizospheres on Living	Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
Sediment Deposits (B2)		_ Recent Iron Reduction in Tilled So	oils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)		_ Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic Position (D2)
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🖌 No	Depth (inches):6		
Water Table Present?	Yes 🖌 No	Depth (inches):0		
Saturation Present? (includes capillary fringe)	Yes 🖍 No	Depth (inches):0	Wetland H	ydrology Present? Yes 🖌 No
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, previous inspec	tions), if avai	lable:
Describe Recorded Data (site				
Remarks:				
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			
Remarks: Wetland hydrology indicators p	present			

Sampling Point: wsuc010s_w

20	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 50)	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 2 (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/E
6.				
7	-			Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
	0	= Total Cove	r	
50% of total cover: 0	20% o	f total cover:	0	OBL species x 1 =
Carling (Chryth Stratum (Plat size) 15				EACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size:)				40 120
1. Liquidambar styraciflua	20	Yes	FAC	FAC species $x 3 = 120$
o Pinus taeda	20	Yes	FAC	FACU species 0 x 4 = 0
2				
3				UPL species $x_5 = 120$
Δ				Column Totals:(A)(B
5				Prevalence Index = $B/A = 3$
6.				
7				Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				
0				$\frac{1}{2}$ 2 - Dominance Test is >50%
9	- 10			✓ 3 - Prevalence Index is ≤3.0 ¹
	40	= Total Cove	r	4 Marphalagical Adaptations ¹ (Brovide supportir
50% of total cover: 20	20% 0	f total cover:	8	
Liarth Otractives (Platicized 5)				data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1				
2				
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
1				
т				Definitions of Four Vegetation Strata:
5				
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of
_				more in diameter at breast height (DBH), regardless of
7		·		height.
8.				
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
11				Herb – All herbaceous (non-woody) plants, regardles
	0	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% o	f total cover:	0	
Woody Vine Strotum (Blot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2		·	_	
<u> </u>				
3		. <u> </u>		
4				
				Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes <u>Ves</u> No
50% of total cover: 0	20% 0	f total cover:	0	
	2070.0			
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 5/2	55	10 YR 4/6	5	С	PL/M	SCL	
	2.5 YR 4/2	40					SCL	
							-	
¹ Type: $C=C$	Concentration, D=Depl	etion. RM	I=Reduced Matrix. M	S=Masker	Sand Gra	ains	² Location: F	PI =Pore Lining, M=Matrix,
Hydric Soil	Indicators:		· · · · · · · · · · · · · · · · · · ·				Indic	cators for Problematic Hydric Soils ³ :
Histoso	bl (A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
Histic E	Epipedon (A2)		Polyvalue Be	elow Surfa	ce (S8) (N	ILRA 147,	148)	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark St	urface (S9) (MLRA 1	47, 148)		(MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix ((F2)		I	Piedmont Floodplain Soils (F19)
Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
2 cm M	luck (A10) (LRR N)		Redox Dark	Surface (F	-6)			Very Shallow Dark Surface (TF12)
Deplete	ed Below Dark Surface	e (A11)	Depleted Da	rk Surface	e (F7)		(Other (Explain in Remarks)
Thick D	Dark Surface (A12)		Redox Depr	essions (F	8)			
Sandy	Mucky Mineral (S1) (L	RR N,	Iron-Mangar	ese Mass	es (F12) (I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 13	6, 122)	³ In	dicators of hydrophytic vegetation and
Sandy	Redox (S5)		Piedmont Fle	oodplain S	ioils (F19)	(MLRA 14	8) w	etland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent	Material (F	21) (MLR	A 127, 147	') ui	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (ir	nches):						Hydric Soi	il Present? Yes 🖌 No
Remarks:							1	



Photo 1 Wetland data point WSUC010s_w facing north



Photo 2 Wetland data point WSUC010s_w facing northeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: City of	of Suffolk	Sampling Date: 2/6/2016
Applicant/Owner: DOMINION		State: VA	_ Sampling Point: wsuc010_u
Investigator(s): Team C	Section, Township	o, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): Slight slope	Local relief (concave,	convex, none): none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): T Lat: 36	3.63361179	Long: <u>-76.88299646</u>	Datum: WGS 1984
Soil Map Unit Name: Tomotley loam		NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes I	No (If no, explain in Rei	marks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" pre	esent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answers	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled S	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Yes No _ Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Mo Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) No	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) Remarks:	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology indicators present	Wetland Hydrology Present? Yes <u>No</u> ctions), if available:

Sampling Point: wsuc010_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
₁ Pinus taeda	10	Yes	FAC	That Are OBL_EACW or EAC 6 (A)
		·	<u> </u>	
2		·		Total Number of Dominant
3	·	·		Species Across All Strata: 7 (B)
4				· · · · · · · · · · · · · · · · · · ·
			·	Percent of Dominant Species
5	·	·	<u> </u>	That Are OBL, FACW, or FAC:(A/B)
6		·		
7				Prevalence Index worksheet:
	10			Total % Cover of: Multiply by:
		= Total Cove	r 2	OBL species 0 x1 = 0
50% of total cover:	20% of	total cover:	2	
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = 0$
₁ Pinus taeda	30	Yes	FAC	FAC species 150 x 3 = 450
	20	Ves	FAC	FACIL species $45 \times 4 = 180$
			- 170	
3. Quercus alba	20	Yes	FACU	UPL species $x_{5} = 0$
⊿ llex opaca	10	No	FACU	Column Totals: (A) (B)
- ·		·	<u> </u>	
5	·	·	<u> </u>	Prevalence Index = $B/A = 3.23$
6	·	<u> </u>	<u> </u>	
7				nyurophytic vegetation indicators:
··	·	·		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	80	- Total Covo	r	3 - Prevalence Index Is ≤3.0
500/ of total courses 40			16	4 - Morphological Adaptations ¹ (Provide supporting
	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: ⁵)				
_{1.} Dichanthelium clandestinum	50	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
 Smilax rotundifolia 	20	Yes	FAC	
Z		<u> </u>	540	¹ Indicators of hydric soil and wetland hydrology must
3. Lonicera japonica	20	Yes	FAC	be present, unless disturbed or problematic.
4. Rubus argutus	15	No	FACU	Definitions of Four Venetation Strates
		·		Definitions of Four vegetation Strata:
ə				Tree – Woody plants, excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
0				
0		·	<u> </u>	Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
11	105	· . <u></u>	·	Herb – All herbaceous (non-woody) plants, regardless
	105	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 52.	5 20% of	total cover:	21	Monday in All woods in a prostor then 2,00 ft in
Woody Vine Stratum (Plot size: 30)				woody vine – All woody vines greater than 3.28 ft in
I	·	·	<u> </u>	
2				
3.				
		·		
4	·	·	·	Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
	2070 01			
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	cription: (Describe to	o the dept	n needed to docum	nent the in	ndicator	or confirm	the absence of indicators.)				
Depth	Matrix		Redo	x Features	5						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remark	(S			
0-16	10 YR 4/4	95	10 YR 4/6	5	С	М	S				
		<u> </u>									
		<u> </u>		<u> </u>			<u> </u>				
1						·		·			
Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	Location: PL=Pore Lining, M=Matri	¹ IX. Hydric Soils ³ :			
Histosol	(A1)		Dark Surface	(\$7)			2 cm Muck (A10) (MI B	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Histic E	oipedon (A2)		Polyvalue Be	low Surfac	e (S8) (M	LRA 147.	148) Coast Prairie Redox (A1	(6)			
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 147, 148)	,			
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	- -2)		Piedmont Floodplain So	ils (F19)			
Stratifie	d Layers (A5)		Depleted Mat	trix (F3)			(MLRA 136, 147)				
2 cm Mu	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)		Very Shallow Dark Surfa	ace (TF12)			
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remai	rks)			
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)						
Sandy M	/lucky Mineral (S1) (Ll	RR N,	Iron-Mangan	ese Masse	es (F12) (I	_RR N,					
MLR	A 147, 148)		MLRA 13	6)			3				
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (I	MLRA 13	6, 122)	Indicators of hydrophytic	vegetation and			
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	3) wetland hydrology must b	be present,			
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	21) (MLR	A 127, 147	unless disturbed or proble	ematic.			
Restrictive	Layer (if observed):										
Туре:								,			
Depth (in	ches):						Hydric Soil Present? Yes	No			
Remarks:							•				
No wetland h	ydrology present										



Photo 1 Upland data point WSUC010_u facing northwest



Photo 2 Upland data point WSUC010_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	_ Sampling Date: 12/8/2014			
Applicant/Owner: Dominion		State: VA	Sampling Point: wsua008f_w		
Investigator(s): GB, RL	_ Section, Township, Range: <u>^</u>	lo PLSS in this are	а		
Landform (hillslope, terrace, etc.): swale	Local relief (concave, convex	, none): <u>concave</u>	Slope (%): <u>2</u>		
Subregion (LRR or MLRA): T Lat: 36.634	427931 Long:	-76.87807036	Datum: WGS 1984		
Soil Map Unit Name: Nansemond fine sandy loam, 0 to 2 percent slo	pes	NWI classific	ation: PFO1A, PFO1C		
Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally p SUMMARY OF FINDINGS – Attach site map showin	rear? Yes <u>/</u> No y disturbed? Are "Norma roblematic? (If needed, g sampling point locati	(If no, explain in R al Circumstances" p explain any answe ons, transects	emarks.) present? Yes <u> No</u> No rs in Remarks.) s, important features, etc.		
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes ✓ No Wetland Hydrology Present? Yes ✓ No Remarks: Wetland data point for a saturated to temporarily flooded PFO wetlar flows through feature. Receives ample run-off and sediment load from	Is the Sampled Area within a Wetland? d located in a wet swale betwee m adjacent agricultural fields	Yes	No		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply))	Surface Soil	Cracks (B6)		
Surface Water (A1) Aquatic Fauna (B ↓ High Water Table (A2) Marl Deposits (B1	13) 5) (I BB II)	Sparsely Ve	getated Concave Surface (B8)		
✓ Saturation (A3) Hvdrogen Sulfide	Odor (C1)	Moss Trim Lines (B16)			
Water Marks (B1) Oxidized Rhizosp	heres along Living Roots (C3)	Dry-Season Water Table (C2)			
Sediment Deposits (B2) Presence of Redu	iced Iron (C4)	Crayfish Bur	 Crayfish Burrows (C8) 		
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C6)	Saturation V	ation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	Position (D2)			

 Iron	D	ерс	osits (B5)	

Iron Deposits (B5)		Other (Explain in Remarks)	Shallow Aquitard (D3)			
Inundation Visible on A	erial Imagery (B7)	7)	FAC-Neutral Test (D5)			
Water-Stained Leaves	(B9)		Sphagnum moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present?	Yes N	No Depth (inches):				
Water Table Present?	Yes 🖌 N	No Depth (inches): 2				
Saturation Present? (includes capillary fringe)	Yes 🖌 N	No Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No			
Describe Recorded Data (s	tream gauge, mor	nitoring well, aerial photos, previous inspec	tions), if available:			
Remarks:						

Sampling Point: <u>wsua008f_w</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1 Pinus taeda	20	Yes	FAC	That Are OBL_FACW_or FAC: 8 (A)
2 Quercus phellos	15	Yes	FACW	
2. Platanus occidentalis	15	Yes	FACW	Total Number of Dominant
	10	No	FAC	Species Across All Strata: <u>9</u> (B)
	10			Percent of Dominant Species
5. Quercus laurifolia		<u>N0</u>	FACW	That Are OBL, FACW, or FAC: <u>88.888888888</u> (A/B)
6. Acer rubrum	5	No	FAC	Describer of the law sector based
7. Quercus michauxii	5	No	FACW	Prevalence Index worksneet:
8				Total % Cover of:Multiply by:
	80	= Total Cov	/er	OBL species $0 \times 1 = 0$
50% of total cover:	20% of	total cover	. 16	FACW species $\frac{67}{2}$ x 2 = $\frac{134}{2}$
Sapling/Shrub Stratum (Plot size: 15)				FAC species $x_3 ={285}$
Liquidambar styraciflua	15	Yes	FAC	FACU species 40 x 4 = 160
Pinus taeda	15	Voc		UPL species $0 \times 5 = 0$
	10	165	FAC	Column Totals: 202 (A) 579 (B)
3. <u>Acer rubrum</u>	10	Yes	FAC	
4. Quercus phellos	10	Yes	FACW	Prevalence Index = B/A = 2.86
5. Itea virginica	8	No	FACW	Hydrophytic Vegetation Indicators:
6. Liriodendron tulipifera	5	No	FACU	1 Panid Toot for Hydrophytic Vegetation
7 Magnolia virginiana	4	No	FACW	
0				2 - Dominance Test is >50%
0	67			<u>V</u> 3 - Prevalence Index is ≤3.0'
33.5		= Total Cov	/er 13.4	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	. 13.4	
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3.				
4		·		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				height.
5			·	
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 In. DBH and greater than 3.28 ft (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11.				height.
12				J. J
	0			
FOOV of total covery			. 0	
Subscription Obscription (D) to be 20	20% 01	iotal cover	·	
Woody Vine Stratum (Plot size:)	25	Vee		
		Yes		
2. Smilax rotundifolia	15	Yes	FAC	
3. Bignonia capreolata	5	No	FAC	
4.				
5				U. dranh. tia
	55		/or	Vegetation
50% of total cover: 27.5	200/ of		. 11	Present? Yes <u>V</u> No
	20% 01		·	
Remarks: (If observed, list morphological adaptations belo	w).			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the indicato	or or confirm	the absence of indicators.)
Depth	Matrix		Redox	x Features		
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Type	Loc ²	Texture Remarks
0-3	10YR 2/1	100		,		
3-10	10YR 3/1	100				SIL
10-18	10YR 4/1	100				SIL
¹ Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked Sand (Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	ble to all LF	Rs, unless other	wise noted.)		Indicators for Problematic Hydric Soils ³ :
 Histosol Histic Ep Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pr 1 cm Mu Depleted Thick Da Coast Pr Sandy M Sandy R Stripped Dark Su 	(A1) pipedon (A2) stic (A3) an Sulfide (A4) d Layers (A5) Bodies (A6) (LRR P, ncky Mineral (A7) (LR esence (A8) (LRR U) nck (A9) (LRR P, T) d Below Dark Surface ark Surface (A12) rairie Redox (A16) (M fucky Mineral (S1) (L Bleyed Matrix (S4) tedox (S5) Matrix (S6) rface (S7) (LRR P, S,	T, U) R P, T, U) (A11) LRA 150A) RR O, S) T, U)	 Polyvalue Be Thin Dark Su Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dar Redox Depre Marl (F10) (L Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo Anomalous B 	low Surface (S8) rface (S9) (LRR S y Mineral (F1) (LF d Matrix (F2) trix (F3) Surface (F6) k Surface (F7) ssions (F8) RR U) nric (F11) (MLRA ese Masses (F12 ce (F13) (LRR P , (F17) (MLRA 151 tic (F18) (MLRA odplain Soils (F1) right Loamy Soils	(LRR S, T, U) S, T, U) RR O)) (LRR O, P, 1 T, U) 150A, 150B) 9) (MLRA 149 5 (F20) (MLRA	 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A,B) Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type: nor	ne					
Depth (inc	ches):					Hydric Soil Present? Yes 🖌 No
Remarks:						



Photo 1 Wetland data point wsua008f_w facing east



Photo 2 Wetland data point wsua008f_w facing south

Project/Site: Atlantic Coast Pipeline		City/County: Suffolk	Sampling Date: <u>12/8/2014</u>				
Applicant/Owner: Dominion			State: VA	_ Sampling Point: <u>wsua008_u</u>			
Investigator(s): GB, RL		Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): slope		Local relief (concave, con	nvex, none): <u>none</u>	Slope (%): <u>4</u>			
Subregion (LRR or MLRA): T	Lat: 36.6342	28544 Lor	Datum: WGS 1984				
Soil Map Unit Name: Nansemond fine sandy loam,	0 to 2 percent slope	es	NWI classi	fication: None			
Are climatic / hydrologic conditions on the site typic Are Vegetation, Soil, or Hydrology _ Are Vegetation, Soil, or Hydrology _ SUMMARY OF FINDINGS – Attach site	al for this time of yea significantly naturally pro e map showing	ar? Yes <u>V</u> No No disturbed? Are "No blematic? (If need sampling point loc	(If no, explain in ormal Circumstances) ded, explain any answ cations, transect	Remarks.) " present? Yes <u>*</u> No vers in Remarks.) ts, important features, etc.			
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks: Unland data point taken above toe of slope for a si	No No No No No V	Is the Sampled A within a Wetland	rea ? Yes	No <u> </u>			

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living R	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils ((C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	ctions), if available:
Remarks:	
no hydrology indicators present	

Sampling Point: <u>wsua008_u</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1. Pinus taeda	30	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Liriodendron tulipifera	30	Yes	FACU	Total Number of Dominant
3. Liquidambar styraciflua	15	Yes	FAC	Species Across All Strata: 7 (B)
4				Demonst of Deminent Creation
5				That Are OBL_FACW_or_FAC' 57.14285714 (A/B)
6				
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	75	= Total Cov	er	OBL species $0 \times 1 = 0$
50% of total cover: 37.5	5 20% of	total cover	15	FACW species $0 x 2 = 0$
Sanling/Shruh Stratum (Plot size: 15)	20 /0 01			FAC species $\frac{85}{x 3} = \frac{255}{x 3}$
<u>Liriodendron tulipifera</u>	20	Yes	FACU	FACU species $100 \times 4 = 400$
Pinus taeda	15	Yes	FAC	UPL species $0 \times 5 = 0$
2. Liquidambar styraciflua	15	Ves	FAC	Column Totals: ¹⁸⁵ (A) ⁶⁵⁵ (B)
	5	No	FACU	
	5			Prevalence Index = B/A =3.54
5. <u>Ilex opaca</u>		INU	FAC	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is $≤3.0^1$
	60	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 30	20% of	total cover:	12	
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3.				
4.				Iree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH) regardless of
5				height.
6	·			Senting/Chrub Weedy plants evoluting vince less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2 2	·			
0.	·			Herb – All herbaceous (non-woody) plants, regardless
9	·			or size, and woody plants less than 3.20 it tail.
10	·			Woody vine – All woody vines greater than 3.28 ft in
11	·			height.
12				
	0	= Total Cov	er	
50% of total cover: 0	20% of	total cover:		
Woody Vine Stratum (Plot size: 30)				
1. Lonicera japonica	45	Yes	FACU	
2. Gelsemium sempervirens	5	No	FAC	
3				
4				
5.				Hydrophytic
	50	= Total Cov	er	Vegetation
50% of total cover: 25	20% of	total cover:	10	Present? Yes No No
Remarks: (If observed, list morphological adaptations belo	 w)			1

Profile Desc	ription: (Describe t	o the depth n	eeded to docum	ent the i	ndicator o	or confirm t	he absence	of indicato	rs.)	
Depth	Matrix		Redox	Features	3					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-4	10YR 3/2	100					SL			
4-9	10YR 4/2	100					SL	-		
9-20	10YR 6/3	100					SL			
				·						
¹ Type: C=Co	oncentration. D=Depl	etion. RM=Re	duced Matrix. MS	=Masked	Sand Gra	ins.	² Location:	PL=Pore Li	ning. M=Matrix	(.
Hydric Soil I	ndicators: (Applica	able to all LRF	Rs, unless other	wise note	∋d.)		Indicators	for Probler	natic Hydric S	oils ³ :
Histosol	(A1)	_	Polyvalue Bel	ow Surfa	ce (S8) (L l	RR S, T, U)	1 cm I	Muck (A9) (L	RR O)	
Histic Ep	ipedon (A2)		Thin Dark Su	face (S9)	(LRR S,	T, U)	2 cm I	Muck (A10) (LRR S)	
Black His	stic (A3)	-	Loamy Mucky	Mineral ((F1) (LRR	0)	Reduc	ed Vertic (F	18) (outside N	ILRA 150A,B)
Hvdroge	n Sulfide (A4)	_	Loamy Gleve	d Matrix (F2)		Piedm	ont Floodpla	in Soils (F19)	(LRR P. S. T)
Stratified	Lavers (A5)	-	Depleted Mat	rix (F3)			Anomalous Bright Loamy Soils (F20)			
Organic	Bodies (A6) (I PP P	T II) -	Depicted Mat	6)		(MI RA 153B)				
Organic i	olu Minerel (A7)	1,0) <u> </u>	Neulox Daik C				Red Parent Material (TE2)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)										
	esence (A8) (LRR U)) _	Redox Depre	SSIONS (F	5)		very s	Shallow Dark	Surface (TF12	<u>'</u>)
1 cm Mu	ck (A9) (LRR P, T)		Marl (F10) (L	RR U)			Other	(Explain in F	Remarks)	
Depleted	Below Dark Surface	e (A11) _	Depleted Och	ric (F11)	(MLRA 15	51)	2			
Thick Da	rk Surface (A12)	_	Iron-Mangane	ese Masse	es (F12) (l	_RR O, P, T) [°] Indie	cators of hyd	rophytic veget	ation and
Coast Pr	airie Redox (A16) (N	ILRA 150A) _	Umbric Surfa	LRR P, T,	U)	wetland hydrology must be present,				
Sandy M	lucky Mineral (S1) (L	.RR O, S) _	Delta Ochric	(F17) (ML	.RA 151)		unless disturbed or problematic.			
Sandy G	leyed Matrix (S4)	_	Reduced Ver	tic (F18) (MLRA 15	DA, 150B)				
Sandy R	edox (S5)	_	Piedmont Flo	odplain S	oils (F19)	(MLRA 149)	A)			
Stripped	Matrix (S6)	_	Anomalous B	right Loar	nv Soils (F	20) (MLRA	, 149A, 153C	. 153D)		
Dark Sur	face (S7) (LRR P, S	, T, U)					,	,,		
Restrictive L	ayer (if observed):									
Type: non	ne									
Denth (inc	hes).		-				Hydric Soi	Present?	Yes	No 🖌
Demention			_						103	<u> </u>
Remarks:										



Photo 1 Upland data point wsua008_u facing north



Photo 2 Upland data point wsua008_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk Sampling Date: 2/20/2015
Applicant/Owner: Dominion	State: VA Sampling Point: wsua021f_w1
Investigator(s):	_ Section, Township, Range: <u>No PLSS in this area</u>
Landform (hillslope, terrace, etc.): flat	Local relief (concave, convex, none): microtopography Slope (%): 1
Subregion (LRR or MLRA): <u>T</u> Lat: <u>36.6</u>	3454264 Long: -76.87541666 Datum: WGS 1984
Soil Map Unit Name: Weston fine sandy loam	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation, Soil, or Hydrology significan Are Vegetation, Soil, or Hydrology naturally SUMMARY OF FINDINGS – Attach site map showing the structure of the structur	year? Yes No (If no, explain in Remarks.) htty disturbed? Are "Normal Circumstances" present? Yes No problematic? (If needed, explain any answers in Remarks.) ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes V No Hydric Soil Present? Yes V No Wetland Hydrology Present? Yes V No	─ Is the Sampled Area ─ within a Wetland? Yes <u>✓</u> No
Remarks: Wetland data point for a seasonally saturated PFO wetland located	on a disturbed flat.

Tronalia rigarology maloatorol	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Surface Water Present? Yes No ✓ Depth (inches): 11 Water Table Present? Yes ✓ No Depth (inches): 11 Saturation Present? Yes ✓ No Depth (inches): 8 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No tions), if available:

Sampling Point: <u>wsua021f_w1</u>

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Dominant Species
1. Pinus taeda		25	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Liquidambar styraciflua		15	Yes	FAC	Total Number of Dominant
3. Nyssa sylvatica		15	Yes	FAC	Species Across All Strata: 8 (B)
4. Quercus phellos		10	No	FACW	(-,
5 Acer rubrum		5	No	FAC	Percent of Dominant Species
6		······································			That Are OBL, FACW, of FAC: (A/B)
0					Prevalence Index worksheet:
7					Total % Cover of: Multiply by:
8		70			OBL species $0 x 1 = 0$
			= I otal Cov	er 14	FACW species $\frac{16}{x^2} = \frac{32}{x^2}$
	50% of total cover:	20% of	total cover		EAC species 96 x 3 = 288
Sapling/Shrub Stratum (Plot siz	re:15)	10	N/	540	EACLI species 14 $x_4 = 56$
1. <u>Ilex opaca</u>		10	Yes	FAC	$\frac{1}{10} = \frac{1}{10} $
2. Fagus grandifolia		10	Yes	FACU	126 (1) 376 (1)
3. Liquidambar styraciflua		5	No	FAC	Column Totals: (A) (B)
4. Acer rubrum		5	No	FAC	Prevalence Index = B/A = 2.98
5. Magnolia virginiana		3	No	FACW	Hydrophytic Vogetation Indicatoro
6 Vaccinium corymbosum		3	No	FACW	A Daniel Test for Understation State
7		······································			1 - Rapid Test for Hydrophytic Vegetation
·					2 - Dominance Test is >50%
o		36	- Tatal Car		3 - Prevalence Index is ≤3.0 ⁺
				rer 72	Problematic Hydrophytic Vegetation ¹ (Explain)
	50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size:	<u> </u>	10		540	¹ Indicators of hydric soil and wetland hydrology must
1. Microstegium vimineum		10	Yes	FAC	be present, unless disturbed or problematic.
2					Definitions of Four Vegetation Strata:
3					Tree – Woody plants, excluding vines 3 in (7.6 cm) or
4					more in diameter at breast height (DBH), regardless of
5.					height.
6					Sapling/Shrub Woody plants, excluding vines, loss
7					than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8					
0					Herb – All herbaceous (non-woody) plants, regardless
9					
10					Woody vine – All woody vines greater than 3.28 ft in
11					height.
12					
	_	10	= Total Cov	rer	
	50% of total cover: 5	20% of	total cover	2	
Woody Vine Stratum (Plot size:	30)				
1. Vitis rotundifolia		6	Yes	FAC	
2. Lonicera japonica		4	Yes	FACU	
3.					
4					
5					
5		10	Tatal Oas		Hydrophytic Vegetation
	5		= Total Cov	er 2	Present? Yes No
	50% of total cover:	20% of	total cover:		
herb ID limited due to snow and o	pnological adaptations belo	w).			
SOIL

Depth Matrix Redox Features (inches) Color (moist) % Type' Loc' Texture Remarks 6-20 10YR 2/1 100 Color (moist) % Type' Loc' SL	Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	e of indicators.)	
(inches) Color (moist) % Color (moist) % Type Loc* Texture Remarks 0-6 10YR 2/1 100 0 0 Color (moist) % Type Loc* Iterative Remarks 6-20 10YR 4/1 90 10YR 5/8 10 C M SCL	Depth	Matrix		Redo	x Features	6				
0-6 10YR 2/1 100 SL 6-20 10YR 4/1 90 10YR 5/8 10 C M SCL	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
6-20 10YR 4/1 90 10YR 5/8 10 C M SCL	0-6	10YR 2/1	100					SL		
Image: Section of the section of th	6-20	10YR 4/1	90	10YR 5/8	10	С	М	SCL		
Image:			·		·					
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histics [pipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 1 cm Muck (A9) (LRR O) Histic Spipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR P) Black Histic (A3) Loamy Gleyed Matrix (F2) Pledmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) ✓ Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F7) Red Parent Material (TF2) Muck Piesence (A8) (LRR U) Redox Dark Surface (F7) Red Parent Material (TF2) Muck Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T) Matri (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (LRR P, T, U) anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6)					- <u> </u>					
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ² : Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A6) V Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) I to m Muck (A9) (LRP, T) Mart (F10) (LRR 0, F1) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR 0, S) Detta Ochric (F13) (LRR 0, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy R			<u> </u>		·					
*Type:: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location:: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A1) Dolyvalue Below Surface (S8) (LRR S, T, U) 2 cm Muck (A10) (LRR O) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Pledmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) ✓ Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F6) (MLRA 153B) Second Matrix (F12) 5 cm Muck (A9) (LRR P, T) Medox Dark Surface (F7) Red Parent Material (TF2) Mard (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Cark Surface (F13) (LRR A 151) Thro-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Muck Y Mineral (S1) (LRR O, S) Deleted Orbic (F17) (MLRA 150A, 150B) Sandy Mucky Mineral (S10) (LRR O, S) Pledmont Floodplain Soil					<u></u>					
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Gleyed Matrix (F2) Peletmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) V Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F7) Red Parent Material (TF2) Muck Yesence (A8) (LRR P, T) Medic Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Coast Praine Redox (A16) (MLRA 150A) Umbric Surface (F12) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Depleted Ochric (F11) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 149A) Sandy Gleyed Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Stratpee (S7) (LRR P, S, T, U)										
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR C) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Suffde (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) ✓ Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F12) (LRR P, T, U) Other (Ers) (LRR P, T, U) Casst Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Other (Explain in Remarks) Sandy Muck (A9) (LRR P, T, U) Depleted Ochric (F11) (MLRA 150A) unless disturbed or problematic. Sandy Mucky Min										
Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis ³ :	¹ Type: C=Co	oncentration D=Depl	etion RM:	Reduced Matrix MS	S=Masked	Sand Gra	ains	² l ocation [.]	PI =Pore Lining M=Matrix	
	Hydric Soil I	Indicators: (Applica	able to all	LRRs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils ³ :	
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR Š, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) ✓ Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. S andy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) S stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): <td> Histosol</td> <td>(A1)</td> <td></td> <td>Polyvalue Be</td> <td>low Surfac</td> <td>ce (S8) (L</td> <td>RR S, T, U)</td> <td>) 1 cm I</td> <td>Muck (A9) (LRR O)</td>	Histosol	(A1)		Polyvalue Be	low Surfac	ce (S8) (L	RR S, T, U)) 1 cm I	Muck (A9) (LRR O)	
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) ✓ Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Som Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 151) unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A), 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Delta Ochric (F18) (MLRA 150A, 150B) Bestrictive Layer (if observed): Type: none No No	Histic Ep	pipedon (A2)		Thin Dark Su	rface (S9)	(LRR S,	T, U)	2 cm I	Muck (A10) (LRR S)	
	Black Hi	stic (A3)		Loamy Muck	y Mineral ((F1) (LRR	0)	Reduc	ced Vertic (F18) (outside MLRA 150A,B)	
	Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		Piedm	nont Floodplain Soils (F19) (LRR P, S, T)	
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U)	Stratified	l Layers (A5)		Depleted Ma	trix (F3)			Anomalous Bright Loamy Soils (F20)		
	Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark \$	Surface (F	6)		(ML	RA 153B)	
	5 cm Mu	cky Mineral (A7) (LR	R P, T, U)	Depleted Dar	rk Surface	(F7)		Red Parent Material (TF2)		
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) unless disturbed or problematic. Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: none No No Depth (inches): Depth (inches): No No No No Remarks: No No No No No No No	Muck Pr	esence (A8) (LRR U)		Redox Depre	essions (F8	3)		Very Shallow Dark Surface (TF12)		
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: none Depth (inches): Yes No Remarks:	1 cm Mu	ck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other	(Explain in Remarks)	
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: none Depth (inches): Remarks: Remarks:	Depleted	Below Dark Surface	e (A11)	Depleted Ocl	nric (F11)	(MLRA 1	51)			
Coast Prairie Redox (A16) (MLRA 150A)Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S)Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4)Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Stripped Matrix (S6)Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:	Thick Da	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P, 1	r) [°] Indie	cators of hydrophytic vegetation and	
	Coast Pr	rairie Redox (A16) (N	ILRA 150/	A) Umbric Surfa	ice (F13) (LRR P, T	, U)	we	tland hydrology must be present,	
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Sandy M	lucky Mineral (S1) (L	RR O, S)	Delta Ochric	(F17) (ML	RA 151)		unl	ess disturbed or problematic.	
Sandy Redox (S5)Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6)Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches):	Sandy G	leyed Matrix (S4)		Reduced Ver	tic (F18) (I	MLRA 15	0A, 150B)			
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: none Depth (inches): Hydric Soil Present? Yes <u>Ves</u> No	Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 149	PA)		
	Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)									
Restrictive Layer (if observed): Type: none Type: Depth (inches): Depth (inches): Hydric Soil Present? Yes No Remarks: No	Dark Su	face (S7) (LRR P, S	, T, U)							
Type: Indite Depth (inches): Remarks:	Restrictive L	_ayer (if observed):								
Depth (inches): Hydric Soil Present? Yes No Remarks:	Type: 10									
Remarks:	Depth (inc	ches):						Hydric Soi	I Present? Yes No	
	Remarks:									



Photo 1 Wetland data point wsua021f_w1 facing north



Photo 2 Wetland data point wsua021f_w1 facing south

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline	_ City/County: Suffolk Sampling Date: 2/20/2015							
Applicant/Owner:	State: VA Sampling Point: wsua021_u1							
Investigator(s): GB, CC	_ Section, Township, Range: <u>No PLSS in this area</u>							
Landform (hillslope, terrace, etc.): gentle slope	_ Local relief (concave, convex, none): <u>none</u> Slope (%): <u>2</u>							
Subregion (LRR or MLRA): T Lat: 36.63	3451786 Long: -76.87525424 Datum: WGS 1984							
Soil Map Unit Name: Lynchburg fine sandy loam	NWI classification: None							
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in Remarks.)							
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "Normal Circumstances" present? Yes 🔽 No							
Are Vegetation, Soil, or Hydrology naturally (oblematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showin	SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No ✓ Wetland Hydrology Present? Yes No ✓	─ Is the Sampled Area ─ within a Wetland? Yes No							
Remarks: Upland data point taken on a gentle slope for a seasonally saturated	d/seasonally surface saturated PFO mosaic on a disturbed flat.							

HYDROLOGY

	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)		
Primary Indicators (minimum of one is required; check all that apply)			
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)		
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No <u>'</u> Depth (inches):			
Saturation Present? Yes No <u>/</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:		

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: <u>wsua021_u1</u>

30	Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species			
1. Pinus taeda	40	Yes		That Are OBL, FACW, or FAC:6 (A)			
2. Liquidambar styracifiua		Yes	FAC	Total Number of Dominant			
3. <u>Acer rubrum</u>	10	NO	FAC	Species Across All Strata: 7 (B)			
4. Liriodendron tulipifera	8	No	FACU	Percent of Dominant Species			
5				That Are OBL, FACW, or FAC: <u>85.71428571</u> (A/B)			
6				Describer of the description of the set			
7				Prevalence index worksneet:			
8				<u>I otal % Cover of:</u> <u>Multiply by:</u>			
	78	= Total Cov	er	$\begin{array}{c} OBL \text{ species} \\ \hline \\ 0 \\ \hline \\ \end{array} \\ x 1 = \\ \hline \\ 0 \\ \hline \\ 0 \\ \hline \\ \end{array}$			
50% of total cover:39	20% of	total cover	15.6	FACW species 108 $x 2 = 0$			
Sapling/Shrub Stratum (Plot size: 15)				FAC species 32 $x 3 = 32$			
1. Morella cerifera	12	Yes	FAC	FACU species 22 x 4 = 0			
2. Pinus taeda	10	Yes	FAC	UPL species 0 x 5 = 0			
3 Fagus grandifolia	6	No	FACU	Column Totals:130 (A)412 (B)			
⊿ llex opaca	4	No	FAC	3.16			
5				Prevalence Index = B/A =			
5				Hydrophytic Vegetation Indicators:			
6			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation			
7			·	✓ 2 - Dominance Test is >50%			
8	22		. <u> </u>	$_$ 3 - Prevalence Index is $\leq 3.0^1$			
10	= Total Cover		rer	Problematic Hydrophytic Vegetation ¹ (Explain)			
50% of total cover:	20% of	total cover	0.4				
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must			
1				be present, unless disturbed or problematic.			
2				Definitions of Four Vegetation Strata:			
3				Tree Mandy planta availuding vince 2 in (7.6 am) or			
4.				more in diameter at breast height (DBH), regardless of			
5.				height.			
6				Sanling/Shrub Woody plants evoluting vince loss			
7			·	than 3 in. DBH and greater than 3.28 ft (1 m) tall.			
8							
0				Herb – All herbaceous (non-woody) plants, regardless			
9							
10			<u> </u>	Woody vine – All woody vines greater than 3.28 ft in			
11				height.			
12			<u> </u>				
_	0	= Total Cov	rer				
50% of total cover: 0	20% of	total cover					
Woody Vine Stratum (Plot size: 30)							
1. Lonicera japonica	8	Yes	FACU				
2. Smilax rotundifolia	6	Yes	FAC				
3. Vitis rotundifolia	6	Yes	FAC				
4							
5				Hydrophytic			
	20	= Total Cov	er	Vegetation			
50% of total cover: ¹⁰	20% of	total cover	4	Present? Yes No No			
Remarks: (If observed, list morphological adaptations belo	w)						
no herbs viaible above snow cover							

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Features	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-7	10YR 2/2	100					SL		
7-16	10YR 3/2	100					SL	—	
16-24	10YR 4/2	97	10YR 4/6	3	С	М	SL		
·			-						
·									
							·		
¹ Type: C=C	oncentration. D=Depl	etion. RM=	Reduced Matrix. MS		Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	ble to all	_RRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S, T, U) 1 cm Muck (A9) (LRR O)		
Histic Ep	pipedon (A2)		Thin Dark Su	rface (S9)) (LRR S,	T, U)	2 cm Muck (A10) (LRR S)		
Black Hi	istic (A3)		Loamy Mucky Mineral (F1) (LRR O)				Reduced Vertic (F18) (outside MLRA 150A	ι, Β)	
Hydroge	en Sulfide (A4)		Loamy Gleyed Matrix (F2)				Piedmont Floodplain Soils (F19) (LRR P, S,	T)	
Stratified	d Layers (A5)		Depleted Mat	rix (F3)			Anomalous Bright Loamy Soils (F20)		
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark S	Surface (F	-6)		(MLRA 153B)		
5 cm Mu	ucky Mineral (A7) (LR	R P, T, U)	Depleted Dar	k Surface	(F7)		Red Parent Material (TF2)		
Muck Pr	esence (A8) (LRR U)		Redox Depressions (F8)				Very Shallow Dark Surface (TF12)		
1 cm Mi	uck (A9) (LRR P. T)		Marl (F10) (L	RR U)	- /		Other (Explain in Remarks)		
Deplete	d Below Dark Surface	(A11)	Depleted Ochric (F11) (MLRA 151)						
Thick D	ark Surface (A12)	(,)	Iron-Mandan	ese Massi	es (F12) (T) ³ Indicators of hydrophytic vegetation and		
Coast P	rairie Redox (A16) (M	A) Umbric Surface (F13) (LRR P. T. U)				wetland hydrology must be present			
Coast I	Aucky Mineral (S1) (I		Delta Ochric	(E17) (MI	DA 151)	, 0)	unless disturbed or problematic		
Sandy (Nucky Milleral (ST) (L	KK 0, 3)	Deita Ochinc	(E19) (IVIL	MIDA 15	04 1500)	unless disturbed of problematic.		
Sandy C	Dedex (SE)		Reduced Ver	uc (F 10) (adalaia S		(MI DA 44)	0.4.)		
Sanuy P	(CC)			ouplain S			9A) A 440A 4520 452D)		
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)									
Dark Su		, I, U)					Ι		
Type ^{. NO}	Layer (if observed): ne								
Depth (inches):							Hydric Soil Present? Yes No		
Remarks:									



Photo 1 Upland data point wsua021_u1 facing east



Photo 2 Upland data point wsua021_u1 facing west